

# THE COMPETITIVENESS OF AUSTRALIAN INDUSTRY

**Report No. 1**

**The Australian Processed Food  
and Beverage Industry**

Australian Academy of Technological  
Sciences and Engineering  
1994

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## FOREWORD

The Competitiveness of Australian Industry is important to Australia's exports and therefore to our standard of living. To highlight the challenges and problems of competing in world markets the Academy held Symposia in 1991 and 1992 respectively on "Australian Competitiveness - The Vital Role of Technology" and on "Globalisation of Technology - Threats and Opportunities". In addition to these Symposia it is carrying out a series of studies on the on the competitiveness of different sectors of Australian industry.

In this, the first of three studies, the competitiveness of the processed food industry is examined. The Academy is grateful to Dr John S Keniry FTS who led the study, to the study team and to all the companies who provided the information and opinions on which the study is based. The Council of the Academy has considered the report and has endorsed the general tenor of its recommendations.

There is considerable potential for the Australian food industry to increase its exports of processed food products and the Academy has recently published a series of articles in its newsletter "ATS *Focus*" on this subject dealing with particular sectors of the food industry. This report is aimed at identifying trends and attitudes to the exporting of food products and actions that are perceived as necessary or desirable to enhance further exports.

It highlights the need for innovation, research and development and investment in the food industry and I commend it the food industry, to State and Federal Government and to research and other organisations involved with the food industry.

President

Australian Academy of Technological Sciences and Engineering

## 1 INTRODUCTION

The 1990's marks a watershed for the Australian Processed Food and Beverage Industry. For many years the Industry had a domestic market orientation and a relatively comfortable existence secured by tariff barriers and the natural protection of Australia's geographic location. In recent years, however, the Industry has been exposed to the challenges of international markets, especially in the rapidly growing markets of the Asian region, and to competition from powerful food companies that are establishing facilities in this region.

This Academy study has been conducted against a background of increasing awareness, stirrings for change, and joint Government and Industry initiatives. The study is not a comprehensive review of this vast Industry but rather a sample of feedback from Industry participants .... a barometer of Industry views in late 1993, when the survey was carried out. Our sample is representative of the leading companies in the Industry.

The Committee comprised:

Dr John Keniry FTS

Chairman

Dr Alan Donald AM FTS

Director, CSIRO Institute of Animal Production and Processing

Dr Paul Nestel FTS

Chief, Division of Human Nutrition, CSIRO

Emeritus Professor Ron Edwards FTS

formerly Foundation Professor of Food Technology, UNSW

Dr John Christian AO FTS

formerly Chief, CSIRO Division of Food Research

Mr Campbell Coe

Executive Officer

Australian Academy of Technological Sciences and Engineering

Mr Rob Firth of Goodman Fielder provided the secretariat function and point of contact with the participating companies.

The survey has resulted in a number of valuable findings which should contribute to the on-going discussion of the Industry's future and to constructive suggestions for Government policy initiatives for the food industry.

*The Committee takes this opportunity to thank the many individuals from private sector companies and Government who contributed their time and shared their views on the Australian food industry.*

## 2 EXECUTIVE SUMMARY

1. Over the past several years there has been considerable focus on the potential of the Australian food industry to increase its exports of processed food products, particularly to the rapidly growing Asian markets. This report presents the findings of a detailed survey of food companies and the chief executives of these companies. The aim has been to identify trends in attitudes to exporting of food products and actions that are perceived as necessary or desirable to further enhance competitiveness, and hence export performance.

2. The survey has revealed considerable optimism about food opportunities in the region combined with caution about Australia's investment climate, some frustration with the slow rate of microeconomic reforms and difficulties in market access for some products in some markets.

3. There is evidence that joint Government and industry initiatives over recent years have significantly contributed to increasing awareness within the food industry, and have increased commitment to improving the industry's performance, for example, in innovation, quality management and pursuit of international best practice. The Federal Government's Agri-Foods Strategy is a key factor in efforts to achieve the target of \$7 billion in highly processed food exports by the end of the 1990's. Most importantly the Agri-Food Strategy and the Agri-Food Council has provided a vision for the industry and a focus around which progress can be made and issues addressed.

4. There is widespread recognition that individual companies have a major role, and the major responsibility for increasing export performance. The Committee found general acceptance of this responsibility among chief executives and some encouraging signs of increased attention to the development within corporations of an export culture. It has found, too, that increased resources are now being applied to innovation, benchmarking, technical research and development and quality systems.

5. Innovation was considered extremely important by most respondents. About half of the respondents nominated "Limited funds for R&D" and "Limited funds for commercialisation" as major constraints to innovation.

Although most companies rely mainly on in-house R&D there was a consistent theme favouring greater coordination and rationalisation of government R&D structures. Suggested improvements included easier access by industry to external R&D resources, centres of excellence, responsiveness to the needs of industry for practical, short and medium-term R&D and a demonstrable commitment to maintaining commercial confidentiality.

The Committee has noted some initiatives that are gaining currency within Australian research groups to shift from basic science-based research to customer-led, market-driven innovation and R&D.

There is no doubt this is already the trend although to fully take up this concept there will need to be a total reassessment of research and innovation philosophies, structures and responsibilities. This does not imply criticism of structures that have served the Australian Industry well in the past. The proposed review does, however, reflect the critical importance of innovation and R&D for achieving and maintaining a position of world competitiveness for the food industry, the shift from commodities towards value-added food and the importance,

these days, of "speed to market".

6. The Committee found among industry respondents a wide range in the extent to which each particular food industry sector organised itself and addresses issues of common interest.

Just as the Agri-Food Strategy has provided a vision and focus for the food industry as a whole, the Committee considers that there would be considerable merit in firms cooperating in the development of detailed, visionary plans for their respective sector within the industry. Development of such plans could be facilitated by the Agri-Food Council. Once these plans have been developed they would provide a mechanism by which companies, research organisations and State and Federal Government could clearly delineate their respective roles, and provide for the collaboration among participants that will be necessary for real progress to be made.

The Committee submits that, given the diverse food industry in Australia, the most effective unit for mobilising the changes will be the various food sectors, for example the dairy, wine, meat, seafoods, horticulture sectors and so on. In many cases this will require increased attention to the sector issues and planning, and some firms might choose not to participate for competitive reasons.

7. While the major responsibility for identifying export opportunities and for pursuing those opportunities lies with the private sector, the survey results have identified a number of issues within the Government sector which are impeding export performance and which the Committee considers worthy of attention. These issues are:

- Many chief executives observed that the investment climate and taxation regime in Australia may *not* be sufficiently attractive to ensure the quantum increase in investment that will be required to achieve the \$7 billion export target for highly processed foods.  
The Committee has considered some of the incentives typically offered by other countries in the region to attract investment (eg direct subsidies, finance, tax incentives, export processing zones, marketing and infrastructure support, trade related investment measures etc) and agrees with the view that such measures can have a significant impact on the location of new investment within the region. One of the Committee's main recommendations involves creating the environment to attract investment in Australia's food industry vis-à-vis other locations in the region.
- Survey participants also pointed to the indirect taxes and charges (payroll tax, superannuation levy, workers compensation, training guarantee levy etc) that Australian food exporters must carry irrespective of their success in achieving international best practice in all other cost inputs. The Committee notes that in many competing countries such imposts do not exist, or are of smaller amount, or are eliminated through VAT zero rating for exports.
- Many chief executives commented on Government assistance programs and there was an overwhelming response to the survey questions relating to assistance programs. Some of the programs are well-known and used, but many are not. The Committee recommendations include a review aimed at improving the operation and communication of such programs to industry.
- Many chief executives also commented on the Australian Quarantine Inspection Service (AQIS) and the National Food Authority (NFA). The Committee notes the adverse perceptions about these bodies, and recommends urgent attention.



## EXECUTIVE SUMMARY

- Market access into some markets is limited by tariff and non-tariff barriers and need addressing on a bi-lateral basis.
- The rate of microeconomic reform in Australia is reducing the rate at which the domestic food industry can become the vibrant, innovative industry upon which export success will depend.

The Committee sees the food industry moving into a new place for the remainder of the 1990s. The rationalisation of ownership and facilities of the 1980s, coupled with the Government's agri-food initiatives, mean the Industry is well placed to become truly world competitive.

There are still many challenges and the Committee believes the key to the next phase will be the degree to which the food sectors are able to organise effectively and tackle the common issues in a systematic and proactive manner. There will still be considerable scope for Government/Industry cooperation, particularly in the Government's tuning of the policy environment to attract the necessary investment in new plants and in accelerating the reforms that have already commenced.

### 3 SUMMARY OF RECOMMENDATIONS

1. The Australian food industry still has some way to go before Australia achieves the desired export culture and efficiencies in the food industry, although some encouraging progress has been and continues to be made.

**The Australian processed food industry should de-emphasise the abundance of, but not the importance of, low cost food materials.** The abundance of food will not automatically guarantee a processing or value-adding role in Australia, but may lead to complacency. Unless the industry can excel at value-adding its foodstuffs for export, there is a real possibility that Australia will be locked into supplying basic commodity foods for value-adding by others overseas, and eventually importing such value-added foods back into Australia.

2. In 1992 the Government announced a wide ranging “Agri-Foods” package with measures to boost exports of fresh and processed foods, particularly to Asia. The Government committed \$12.7 million over 4 years to encourage greater efficiencies in food production, more cooperation between food producers, processors and marketers, and a sharper focus on the development of international markets.

The Committee recognises that the formation of the Agri-Foods strategy provides a focus and vision for the food industry and accordingly **recommends that the Government maintains its support of the Agri-Foods Strategy** at least until the originally stated reforms are achieved.

3. A wide range of reforms will be crucial to achieving and maintaining competitiveness of the processed food industry.

**The Committee recommends a review of the aims and achievements under the 1993 Memorandum of Understanding with the specific intention of accelerating workplace reforms in the food industry.**

4. The number of so-called micro-economic reforms have the potential to improve the food industry’s competitiveness. Accordingly, **the Committee supports calls, from many industry bodies, for the Government to accelerate the microeconomic reform agenda in Australia.**

5. The Committee received many comments from CEOs regarding the operation of the Australian Quarantine Inspection Service (AQIS) and the National Food Authority (NFA).

**The Committee recommends that the adverse perceptions of AQIS and the NFA frequently held by the food industry be addressed as a matter of urgency.** Continuation of those perceptions could affect the industry’s performance in domestic and export markets.

6. **The Agri Foods Council should initiate a review of export certification requirements that are seen to disadvantage food processors in the export of foods,** particularly any instances where the food is known to meet the requirements of the importing country.

7. There was a significant response to questions regarding Government assistance programs to the food industry. There were also many unsolicited comments about such programs.

**The Committee recommends that the Agri Foods Council should examine all existing**

**Government assistance programs as they relate to the food industry with a view to identifying those with most relevance to food companies, improving their accessibility, and communicating the total package to food industry participants.**

The Committee supports the concept of “first-stop shops” for delivery of such programs and recommends the production of a booklet or compendium of programs specifically related to the food industry.

8. Given the diverse nature of the food industry, the Committee sees considerable merit in encouraging companies to plan according to key product sectors within the food industry, for example, wine, dairy, meat, seafood and horticultural sectors.

**The Committee recommends that food sector plans be developed for each of the major food sectors in Australia, facilitated if necessary by the Agri Food Council.**

9. Research structures which have served the Industry well in the past are receiving increasing attention and undergoing some important changes.

**The Committee recommends that the CSIRO or the Agri Foods Council compile definitive data on the resources used for the development of innovations in the food industry, with particular emphasis on “internal” and external” research and development.**

10. **Arising from the development of food sector plans the food industry should encourage the development of highly focused research groups or institutes.** These would be centres of excellence, dedicated to the respective sectors of the food industry. Where feasible, existing research establishments should provide the core facilities for such centres.

11. Industry sector plans should also clarify research needs. **The Committee recommends a reassessment of research and innovation philosophies, structures and responsibilities within the food industry. The public sector research establishments should then explore the possibility of establishing close linkages with the food industry by the placement of Food Technologists within individual firms.**

The Committee supports the philosophy of a customer focus for industry research, that is, a clearly identified “research customer”, be it a sector, a firm, or a government agency, around whom research programs and funding can be designed.

12. The Committee acknowledges recent trends to consider innovation in its broadest sense, from the invention phase through to marketing and commercialisation.

Accordingly, **in respect of the 150% tax concession, the Committee supports the Block Task Force recommendation that a proportion of expenditure incurred on market analysis and the development of market entry strategies be allowed as eligible supporting activities under the R&D tax concession.**

13. A number of chief executives expressed dissatisfaction with some aspects of the “Government/Food Industry” interface”.

**The Committee recommends use of the food sector plans as a means to define the Government/Food Industry interface, and to create greater clarity and direction for the sectors and the Industry as a whole.**

## SUMMARY OF RECOMMENDATIONS

There is considerable potential for clarifying:

- the functions and responsibilities that could be better handled by those closer to the action, namely the sector or its member companies,
- the remaining key roles of the respective governments,
- those services which might be better delegated to, or developed by, state or regional agencies,
- those that should be centralised, and
- those measures that should be introduced for a limited period of time, such as raising awareness of the industry, with clear provision for phasing out or exit.

## 4 METHODOLOGY

The Academy study was based principally on interviews with chief executives of food companies, as well as questionnaires, many of which were completed by the chief executives themselves. The interviews and questionnaires were conducted between August and November, 1993.

The firms approached comprised two main groups.

1. Large food companies manufacturing and marketing products in Australia and overseas, most of whom are subsidiaries or divisions of the multi-national food companies operating in Australia. These companies are referred to in the report as **larger companies** and are defined in the survey as companies having 200 employees or more.
2. Companies with less than 200 employees which have demonstrated an interest in exports. These are referred to in the report as **smaller companies**.

Each of these groups included exporting and non-exporting companies.

### 4.1 TYPES OF FOODS AND REPRESENTATION

The sample is biased towards firms actively pursuing export opportunities of "highly processed food and beverages", which, according to ASIC classifications, accounted for some A\$2.97 billion of exports in 1992/93. It did not cover "minimally processed foods and beverages" such as meat, poultry, liquid milk, butter, raw sugar and malt, nor the high volume commodities such as cereals.

Of necessity, the sample also ignores the views of the thousands of food companies who by virtue of their small size or the nature of their business, are most unlikely to expand their food operations beyond Australia. The firms surveyed, however, account for a large proportion of the sales volume and employment numbers in the industry. The response to the questionnaire represents just under half of total food industry sales and about 25% of industry employment.

The companies surveyed were predominantly engaged in the manufacture and marketing of packaged consumer foods for the domestic Australian market and exports, in descending order, of finished foods for the food service industry, food materials and ingredients for other food companies, and commodity on minimally processed materials (Table 4.1).

Table 4.1: Main markets served by companies surveyed

| Main Markets Served   | Aust Products<br>for Domestic<br>Markets<br>% | Aust<br>Products for<br>Exports<br>% | Off Shore<br>Production<br>% |
|---|---|--------------------------------------|------------------------------|
| Packaged consumer foods   | 83.0  | 55.3                                 | 17.0                         |
| Finished Foods for Food Service<br>Industry                                     | 53.2  | 31.9                                 | 2.1                          |
| Food Materials and ingredients<br>for other food manufacturers,<br>Food Service | 42.6  | 31.9                                 | 8.5                          |
| Commodity or minimally<br>processed materials for<br>food manufacturers         | 14.9  | 14.9                                 | 2.1                          |
| Not applicable  | 0   | 0                                    | 8.5                          |

Percentages are based on the total number of cases. For example 83% of respondents indicated that they market packaged consumer foods into Australian domestic markets. Because

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companies can participate in more than one of these sectors the above percentages will not necessarily add to 100%.

In total, 74 companies were approached to participate in the survey and 70 (94%) agreed to do so. Interviews were arranged with the chief executives of 57 companies, and 47 companies completed and returned questionnaires. This response rate was considered very satisfactory for such a survey, and the overall level of co-operation and support for the Academy study has been excellent.

The Committee noted three areas of major interest in the study, namely:

- **Value added foods**, which provide greater returns to the food industry as well as securing a “sustainable competitive advantage”, it being reported that the value added offshore to Australia’s food commodities exports, such as unprocessed cereal grains, could be put to 10 times the value received by Australia for these commodities,
- **Asian Markets**, which already receive more than half of Australia’s food exports, have strong economic growth forecasts and a high level of processed food imports of US \$50 million per annum that is expected to treble in the 1990s, and
- **Innovation**, which holds the key for food processors to continually upgrade products and services to secure a world competitive position.

## 5 THE AUSTRALIAN FOOD INDUSTRY IN THE 1990'S

### 5.1 BACKGROUND

The food and beverage processing industry is the largest manufacturing industry in Australia accounting for more than 20% of manufacturing turnover and 17% of total manufacturing employment. Total value of production is in the order of \$34 billion.

Exports of processed foods, Table 5.1, are running at about \$9 billion per annum of which about \$3.0 billion are classed as highly processed. Imports of highly processed foods are slightly lower at A\$2.4 billion pa (Table 5.2).

The Australian food industry has a long history of involvement by overseas food companies, many of whom established or acquired operations in Australia to supply the domestic market. Such foreign investment contributed to the early development of the food processing industry in Australia, including product and process technologies and marketing practices. The industry has seen extensive rationalisation in the 1970's and 1980's with a concentration of ownership and rationalisation of factories and facilities.

Australia has good quality, low cost foods derived from the following strengths:

- vast areas of arable land and a wide range of climatic conditions
- clean air and water
- a farming tradition and existing infrastructure
- a long standing successful research effort in agriculture.
- a demonstrated capacity for the establishment of sophisticated and efficient food processing plants.

### 5.2 REFORMS

Notwithstanding these strengths, the performance of the processed food industry in export markets has been patchy and, in recent years, a number of studies have been conducted by Government and industry bodies to identify the opportunities and impediments, and to implement appropriate reform programs.

It is not possible to select any particular study as the "start" of the food industry reforms in Australia, but there was an important report prepared by an Industry/Government Working Group submitted to the Prime Minister's Science Council in May 1991. This report led to the formation of a Food Processing Reference Group which reported to Government on four issues:

- market access, export development and investment
- technology and innovation
- input costs and statutory marketing arrangements, and
- workplace reform and management training

The Reference Group proposed a four year strategy comprising:

- The formation of an Agri-Foods Council
- A concessional loan scheme, and
- A comprehensive range of initiatives to address diverse impediments at source

The strategy envisaged growth to \$7.5 billion of processed food exports by the end of the 90s. \$3.7 billion would be delivered under current trend growth and the food strategy would

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deliver the additional \$3.8 billion.

In July 1992, the Government announced a \$12.7 million four year package of measures to boost exports of fresh and processed foods, particularly to Asia and the establishment of the Agri-Food Council to drive the development and internationalisation of the food sector.

The measures stopped short of a major industry-specific policy along the lines of the Motor Vehicle Plan and the Pharmaceutical Industry Plan, but the measures, along with other Government and industry initiatives have had a positive effect on industry attitudes.

Table 5.1: Exports of processed foods and beverages<sup>(a)</sup>

**EXPORTS OF HIGHLY PROCESSED FOOD AND BEVERAGES**

| ASIC         | Description                    | 1988/89<br>\$A'000 | 1989/90<br>\$A'000 | 1990/91<br>\$A'000 | 1991/92<br>\$A'000 | 1992/93<br>\$A'000 |
|--------------|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 2117         | Bacon, Ham & Small Goods nec   | 12,509             | 10,444             | 10,761             | 12,124             | 12,440             |
| 2123         | Cheese                         | 195,040            | 190,179            | 214,125            | 248,123            | 337,650            |
| 2124         | Ice Cream & Frozen Confections | 2,337              | 1,968              | 3,225              | 8,028              | 7,003              |
| 2125         | Milk Products nec              | 153,889            | 163,597            | 170,046            | 190,463            | 223,031            |
| 2131         | Fruit Products                 | 121,040            | 112,883            | 147,205            | 151,200            | 163,790            |
| 2132         | Vegetable Products             | 45,577             | 52,982             | 52,015             | 59,634             | 66,530             |
| 214          | Margarine, Oils & Fats         | 31,844             | 25,710             | 31,847             | 35,995             | 48,957             |
| 2151         | Flour Mill Products            | 31,663             | 26,125             | 19,996             | 25,918             | 25,344             |
| 2152         | Starch, Gluten & Starch Sugars | 45,110             | 46,438             | 41,562             | 49,406             | 59,118             |
| 2153         | Cereal Foods & Baking Mixes    | 116,928            | 122,181            | 123,871            | 297,993            | 286,730            |
| 2161         | Bread                          | 1,058              | 956                | 1,176              | 1,291              | 936                |
| 2162         | Cakes & Pastries               | 9,489              | 10,141             | 8,881              | 12,895             | 13,725             |
| 2163         | Biscuits                       | 20,464             | 14,817             | 15,431             | 18,006             | 19,923             |
| 2173         | Confectionery & Cocoa Products | 62,343             | 74,007             | 79,403             | 106,091            | 120,080            |
| 2174         | Processed Seafoods             | 540,196            | 570,438            | 588,758            | 682,243            | 704,964            |
| 2175         | Prepared Animal & Bird Foods   | 241,005            | 218,587            | 215,238            | 292,924            | 392,249            |
| 2176         | Food Products nec              | 68,799             | 59,631             | 78,667             | 111,125            | 122,953            |
| 2185         | Soft Drinks, Cordials & Syrups | 41,039             | 34,483             | 25,447             | 19,573             | 15,429             |
| 2186         | Beer                           | 57,629             | 53,522             | 66,072             | 60,662             | 52,572             |
| 2188         | Wine & Brandy                  | 115,699            | 122,998            | 181,805            | 245,670            | 293,915            |
| 2189         | Alcoholic Beverages nec        | 2,875              | 3,321              | 4,409              | 5,610              | 5,864              |
| <b>TOTAL</b> |                                | <b>1,916,501</b>   | <b>1,915,407</b>   | <b>2,079,942</b>   | <b>2,635,785</b>   | <b>2,973,332</b>   |

**EXPORTS OF MINIMALLY PROCESSED FOOD AND BEVERAGES**

| ASIC         | Description         | 1988/89<br>\$A'000 | 1989/90<br>\$A'000 | 1990/91<br>\$A'000 | 1991/92<br>\$A'000 | 1992/93<br>\$A'000 |
|--------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 2115         | Meat                | 2,920,823          | 3,681,506          | 3,766,420          | 3,986,440          | 4,378,092          |
| 2116         | Poultry             | 5,168              | 5,764              | 6,911              | 7,630              | 11,293             |
| 2121         | Liquid Milk & Cream | 14,103             | 21,250             | 23,678             | 28,552             | 33,888             |
| 2122         | Butter              | 282,306            | 371,389            | 341,353            | 372,733            | 535,397            |
| 2171         | Raw Sugar           | 889,394            | 1,057,664          | 901,165            | 684,675            | 1,007,211          |
| 2187         | Malt                | 120,808            | 165,733            | 141,649            | 124,309            | 117,634            |
| <b>TOTAL</b> |                     | <b>4,232,600</b>   | <b>5,303,216</b>   | <b>5,181,175</b>   | <b>5,204,340</b>   | <b>6,083,516</b>   |

**TOTAL EXPORTS OF PROCESSED FOOD AND BEVERAGES**

|  | 1988/89          | 1989/90          | 1990/91          | 1991/92          | 1992/93          |
|--|------------------|------------------|------------------|------------------|------------------|
|  | <b>6,149,101</b> | <b>7,218,632</b> | <b>7,261,117</b> | <b>7,840,125</b> | <b>9,056,848</b> |

<sup>(a)</sup>data is in nominal terms

Source: "Food Australia - Processed Food and Beverages Industry" - 3rd edition



THE AUSTRALIAN FOOD INDUSTRY IN THE 1990'S

Table 5.2: Imports of processed foods and beverages<sup>(a)</sup>

**IMPORTS OF HIGHLY PROCESSED FOOD AND BEVERAGES**

| <b>ASIC</b>  | <b>Description</b>             | <b>1988/89</b>   | <b>1989/90</b>   | <b>1990/91</b>   | <b>1991/92</b>   | <b>1992/93</b>   |
|--------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|
|              |                                | <b>\$A'000</b>   | <b>\$A'000</b>   | <b>\$A'000</b>   | <b>\$A'000</b>   | <b>\$A'000</b>   |
| 2117         | Bacon, Ham & Small Goods nec   | 1,459            | 2,644            | 9,813            | 6,381            | 8,532            |
| 2123         | Cheese                         | 78,562           | 88,949           | 99,577           | 103,587          | 112,574          |
| 2124         | Ice Cream & Frozen Confections | 1,196            | 1,574            | 7,203            | 7,054            | 12,037           |
| 2125         | Milk Products nec              | 17,129           | 14,799           | 14,610           | 22,138           | 35,738           |
| 2131         | Fruit Products                 | 129,215          | 101,680          | 100,443          | 147,653          | 145,636          |
| 2132         | Vegetable Products             | 168,663          | 229,515          | 204,295          | 231,182          | 267,674          |
| 214          | Margarine, Oils & Fats         | 152,716          | 152,547          | 157,329          | 204,399          | 238,984          |
| 2151         | Flour Mill Products            | 248              | 216              | 394              | 279              | 393              |
| 2152         | Starch, Gluten & Starch Sugars | 13,159           | 15,978           | 17,179           | 17,056           | 20,039           |
| 2153         | Cereal Foods & Baking Mixes    | 42,057           | 50,389           | 54,303           | 59,567           | 62,597           |
| 2161         | Bread                          | 644              | 1,256            | 1,886            | 1,484            | 1,432            |
| 2162         | Cakes & Pastries               | 10,597           | 15,979           | 19,734           | 25,445           | 41,383           |
| 2163         | Biscuits                       | 29,730           | 37,187           | 41,094           | 38,912           | 43,664           |
| 2173         | Confectionery & Cocoa Products | 156,544          | 174,770          | 159,148          | 159,531          | 199,088          |
| 2174         | Processed Seafood              | 289,241          | 373,019          | 397,898          | 422,494          | 449,109          |
| 2175         | Prepared Animal & Bird Foods   | 32,684           | 33,615           | 37,983           | 44,443           | 40,057           |
| 2176         | Food Products nec              | 172,919          | 192,208          | 208,038          | 220,820          | 253,721          |
| 2185         | Soft Drinks, Cordials & Syrups | 110,679          | 130,354          | 187,693          | 141,782          | 186,282          |
| 2186         | Beer                           | 16,888           | 18,109           | 15,462           | 15,546           | 19,271           |
| 2188         | Wine & Brandy                  | 78,263           | 80,266           | 76,145           | 71,394           | 79,219           |
| 2189         | Alcoholic Beverages nec        | 170,716          | 193,112          | 181,812          | 183,124          | 210,811          |
| <b>TOTAL</b> |                                | <b>1,773,309</b> | <b>1,908,166</b> | <b>1,992,039</b> | <b>2,214,371</b> | <b>2,428,241</b> |

**IMPORTS OF MINIMALLY PROCESSED FOOD AND BEVERAGES**

| <b>ASIC</b>  | <b>Description</b>  | <b>1988/89</b> | <b>1989/90</b> | <b>1990/91</b> | <b>1991/92</b> | <b>1992/93</b> |
|--------------|---------------------|----------------|----------------|----------------|----------------|----------------|
| 2115         | Meat                | 49,354         | 38,893         | 40,602         | 49,243         | 38,769         |
| 2116         | Poultry             | 6,629          | 10,400         | 9,072          | 12,006         | 10,668         |
| 2121         | Liquid Milk & Cream | 944            | 1,775          | 2,706          | 1,696          | 3,263          |
| 2122         | Butter              | 6,080          | 8,836          | 6,945          | 9,026          | 8,870          |
| 2171         | Raw Sugar           | 182            | 743            | 857            | 3,203          | 1,473          |
| 2187         | Malt                | 16             | 5              | 185            | 371            | 464            |
| <b>TOTAL</b> |                     | <b>63,204</b>  | <b>60,651</b>  | <b>60,367</b>  | <b>75,546</b>  | <b>63,507</b>  |

**TOTAL IMPORTS OF PROCESSED FOOD AND BEVERAGES**

|  | <b>1988/89</b>   | <b>1989/90</b>   | <b>1990/91</b>   | <b>1991/92</b>   | <b>1992/93</b>   |
|--|------------------|------------------|------------------|------------------|------------------|
|  | <b>1,836,513</b> | <b>1,968,817</b> | <b>2,052,406</b> | <b>2,199,917</b> | <b>2,491,748</b> |

<sup>(a)</sup> data is in nominal form

Source: "Food Australia - Processed Food and Beverages Industry" - 3rd edition

## 6 CHANGING ATTITUDES AND EXPORT CULTURE

One of the major objectives of the Agri-Foods Council was to promote an export culture in the Agri-Foods Industry.

Through the survey, the Committee has detected a significant shift towards positive attitudes about the industry and a generally optimistic outlook among chief executives for their own businesses and the Australian food industry generally. The Agri-Foods initiatives, together with an unprecedented level of attention from industry associations, industry leaders, and Government, have contributed in no small way to the changing attitudes.

Many survey respondents cautioned that, notwithstanding the improvements and the new optimism, there is still a long way to go before Australia achieves the desired export culture and efficiencies in the food industry.

This section addresses some of the "old" attitudes and their origins and the signs of emerging optimism and attitude changes.

### 6.1 OLD ATTITUDES

The Industry has a patchy record in terms of international business and, in spite of the progressive removal of impediments, many companies have found it difficult to realise the forecast growth in export sales of processed foods. Few of the Australian food companies have focused on exports and very few have invested in offshore markets. Prior to 1993 there has been a static or, at best, low growth of Australia's exports into countries of the fast growing Asian region. There are reasons for this slower-than-anticipated response to the opportunities in the region. Much relates to the lack of an "export culture", one of the key challenges of the Agri-Foods Council.

In the industry, there has been a legacy of 'farm-gate' thinking and a commodity mindset. This has been exacerbated by farmer co-operative structures and statutory marketing authorities which have dominated the regulation and marketing of many of the agricultural products in Australia.

The survey has revealed a general improvement in the food industry and several outstanding export achievements. However, the Australian food industry still has a long way to go. This point is frequently made by outsiders and industry leaders. In July 1992, Mr Kenichi Ohmae, Chairman of McKinsey, Japan wrote

"the Australian food industry suffers from an 'isolationist' provider's mentality. You think in terms of the Australian marketplace and in terms of tonnes of undifferentiated commodities. You grow it or pick it or collect it and cart it away. Now is the time to think instead of regionally integrated business systems, customer needs and value added"[1].

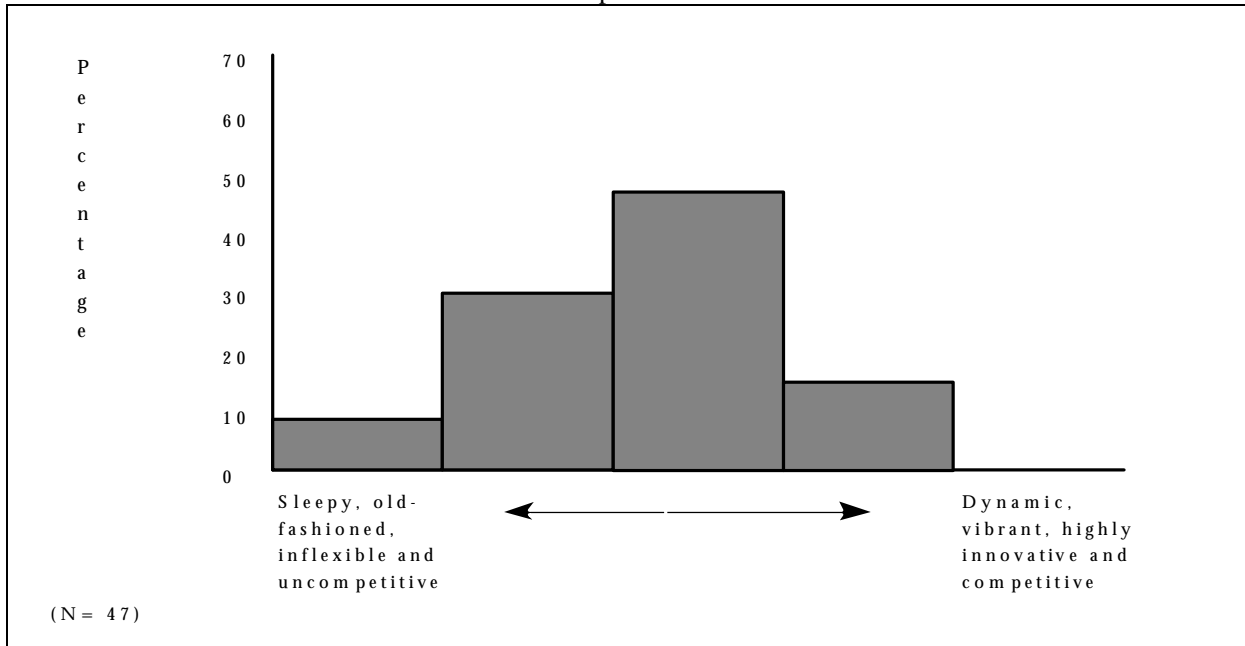
### 6.2 SIGNS OF CHANGE

Much of the information gathered through the questionnaire and interviews was qualitative in nature. However, the Committee believes that the relatively large number of responses, from the heads of leading food companies, to a variety of questions provides a valid assessment of attitudes and how the industry sees itself.

COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

The response to the question "How would you rate the total Australian Food Industry against other developed nations?" is shown in Figure 6.1. Most chief executives indicated an "average" position - not one Company selected the highest rating "Dynamic, vibrant, highly innovative and competitive". Separate analysis not shown here revealed little difference between the responses from the larger (>200 people) and the smaller (<200 people) firms.

Figure 6.1: Impressions of the Australian food industry - rating of total Australian food industry against other developed nations



There was a far more positive response to the question "Do you consider it is possible for the Australian Food Industry to improve its performance, relative to other developed nations say over the next 5 years?" shown in Figure 6.2.

Figure 6.2: Impressions of the Australian food industry - expected improvement of Australian food industry relative to other developed nations over the next five years



## CHANGING ATTITUDES AND EXPORT CULTURE

Many questionnaire respondents added written impressions, such as:

“No impediments that cannot be overcome if we have the will to do it”.

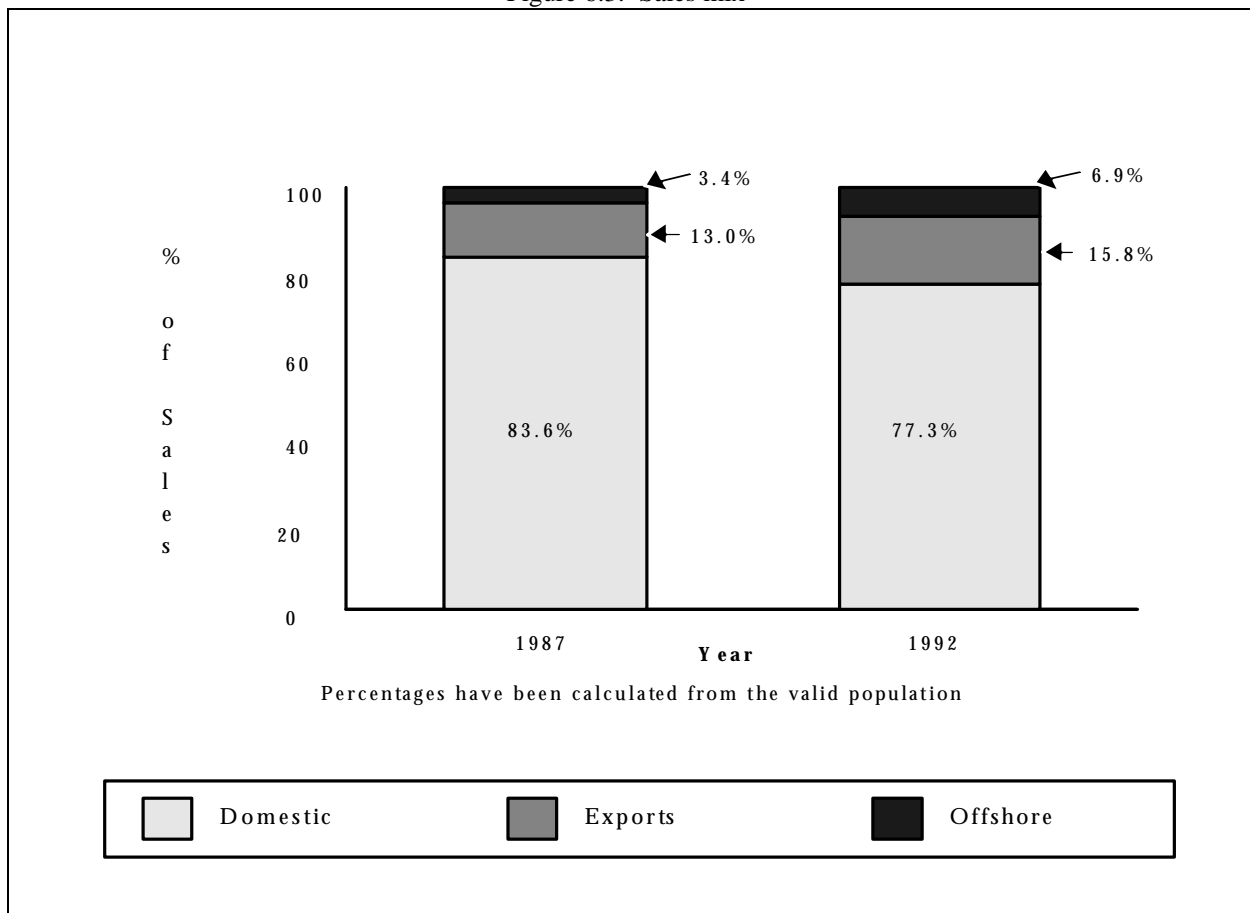
“A culture change is needed along all parts of the value chain to recognise the need to export. Statutory market authorities need to be eliminated. Large market needs must be understood and all Government, Commercial and Union resources need to be focused on satisfying these market needs”.

“Needs a change in approach by the Australian people”.

“Markets must be identified and serviced physically several times per year. We must provide the food and packaging our customers want, not what we give them.”

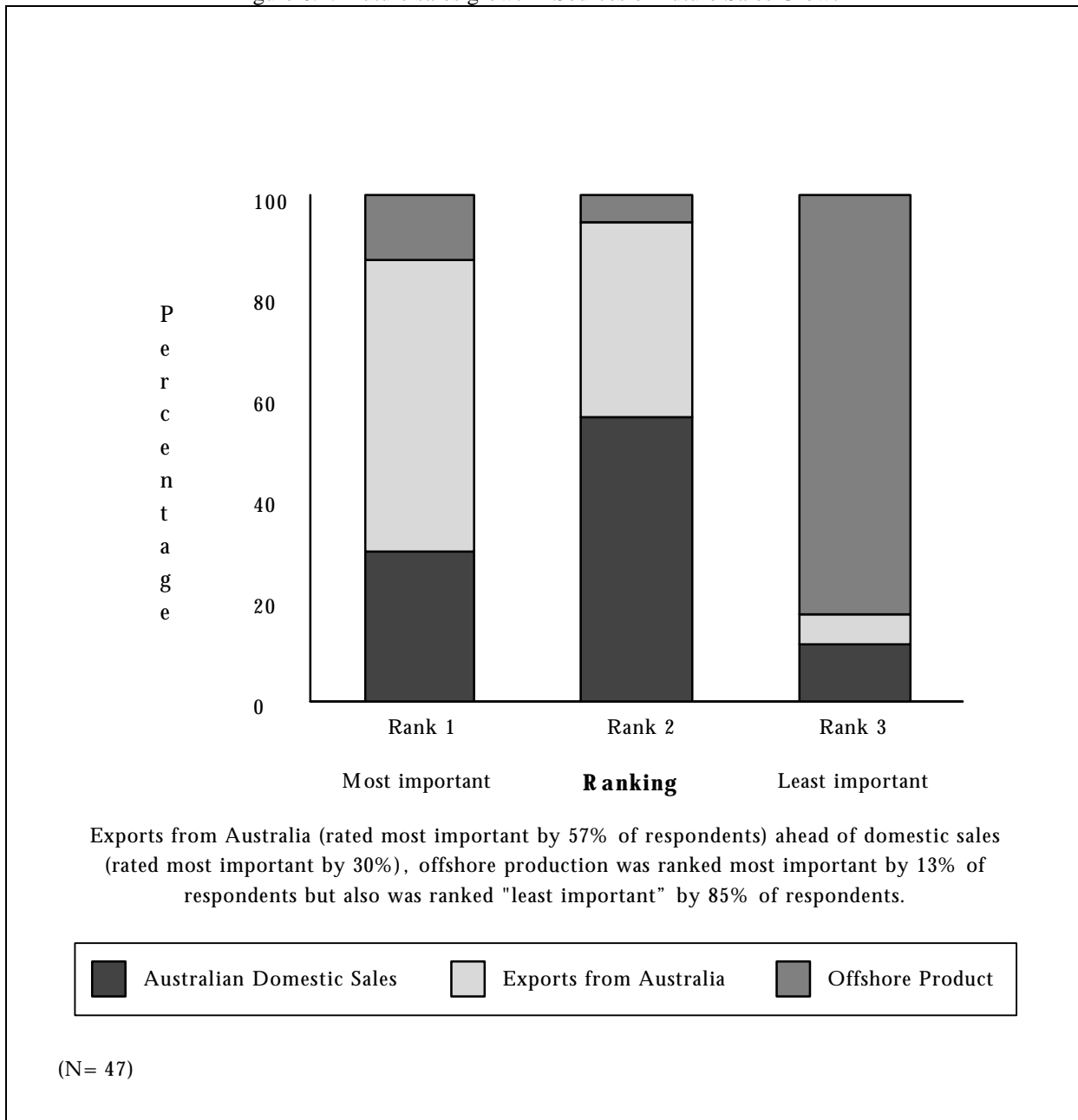
Figure 6.3 shows the **trends in the sales mix (ie, domestic/exports/offshore production)** and revealed a shift towards exports and offshore production.

Figure 6.3: Sales mix



More importantly, as shown in Figure 6.4, 57% of respondents rated exports as the most important source of future growth and a small but significant 13% of respondents referred to offshore production as the most important source.

Figure 6.4: Future sales growth - Sources of Future Sales Growth



The Committee has no data on attitudes 5 - 10 years ago but suspects that the same question would have been answered very differently. That is, in the past there was much less "international" thinking than we now find in the food industry.

**Forecast employee numbers**, Figure 6.5 reflects an increased optimism. It is impossible to say how much can be attributed to economic recovery rather than changed attitudes, but the result is encouraging.

A general optimism was also found in response to the question **"Is your group planning significant capacity expansion in the next two years?"** shown in Figure 6.6.

Not surprisingly, almost all of the smaller companies expect to grow but also more than half (57%) of the larger firms are planning significant expansion. These results are shown in Figures 6.7 and 6.8.

CHANGING ATTITUDES AND EXPORT CULTURE

Figure 6.5: Employees - overall change in Australian employee numbers

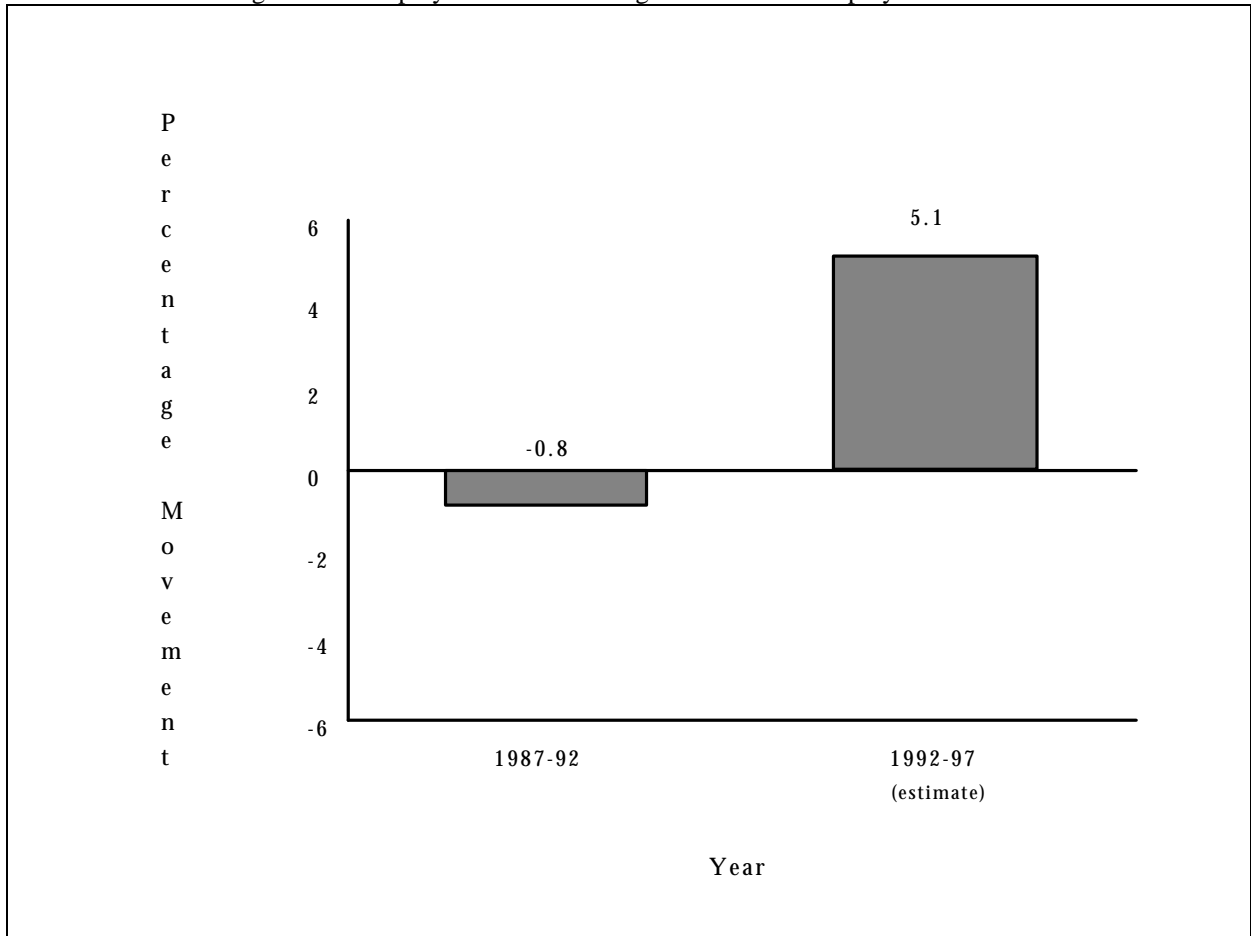
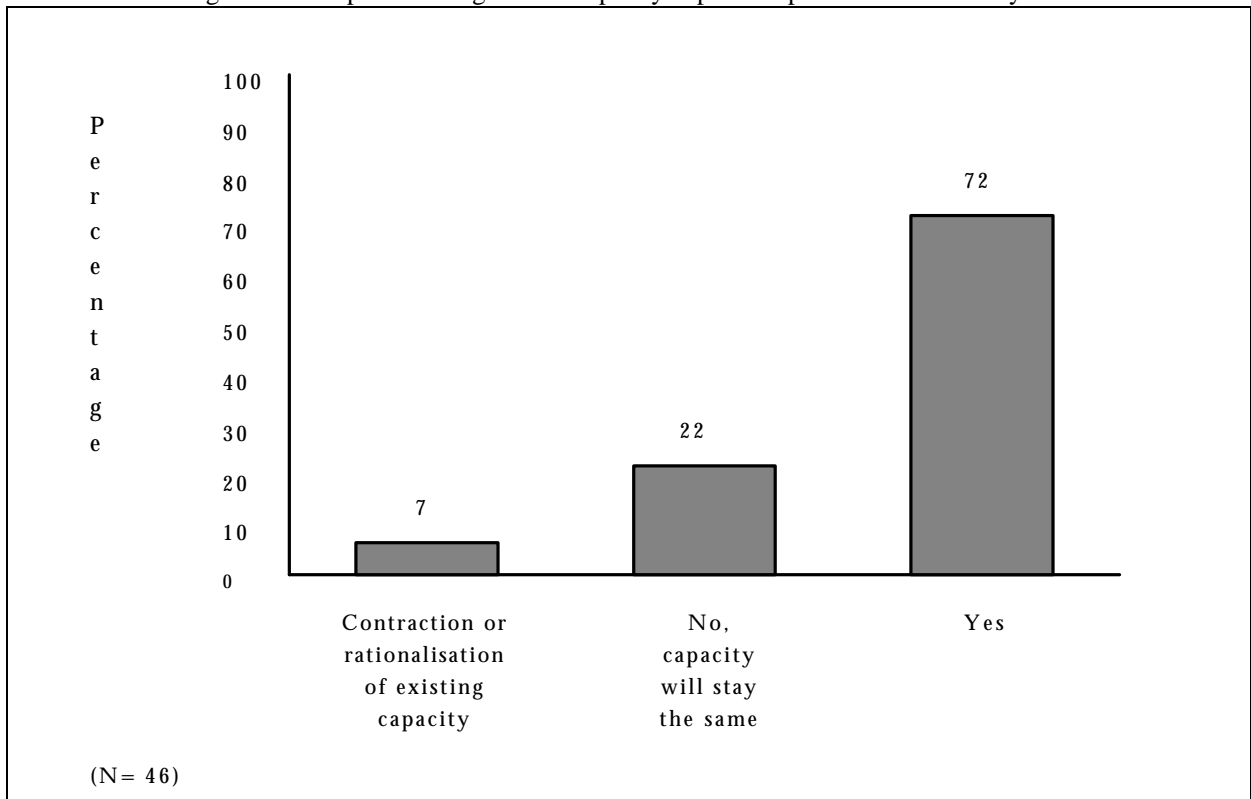


Figure 6.6: Expansion - significant capacity expansion planned in next two years



# COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

Figure 6.7: Expansion - significant capacity expansion planned in next two years firms with 200 or less employees

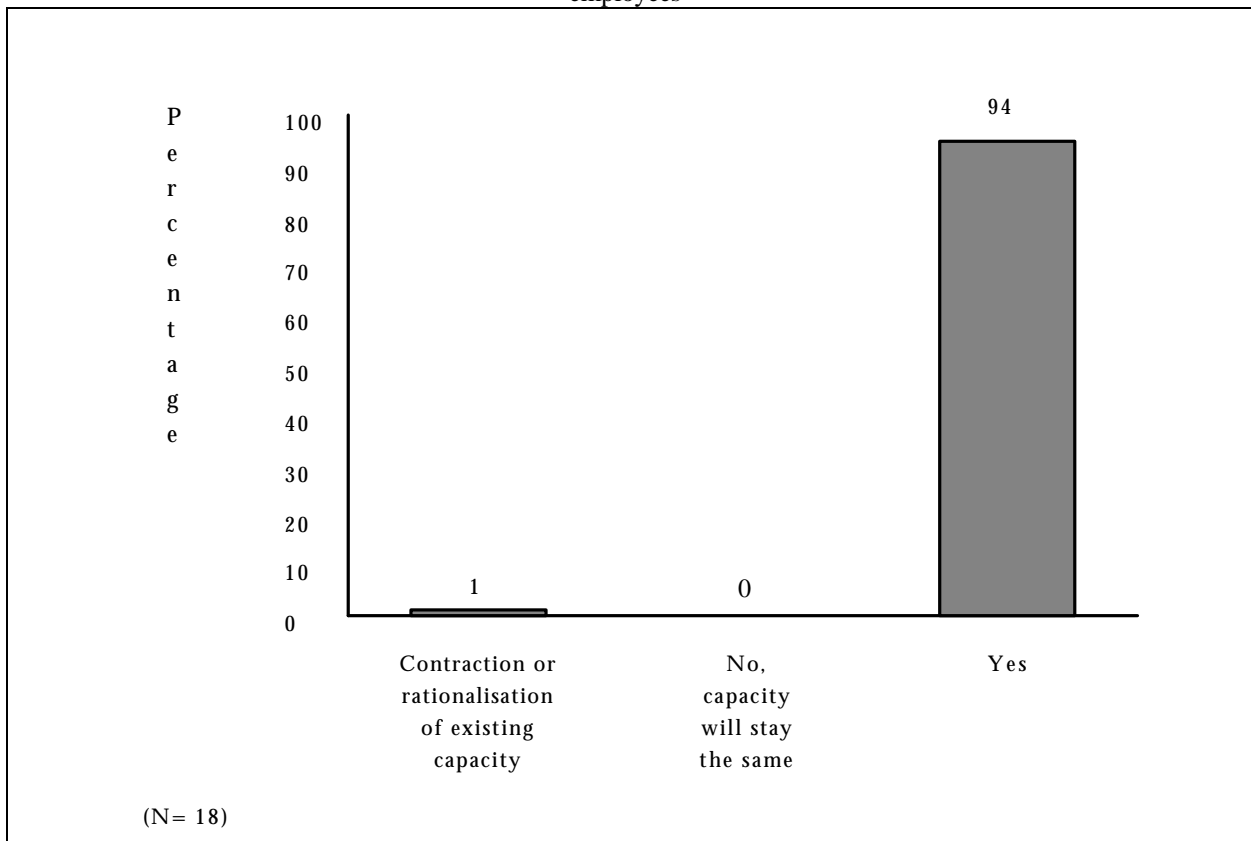
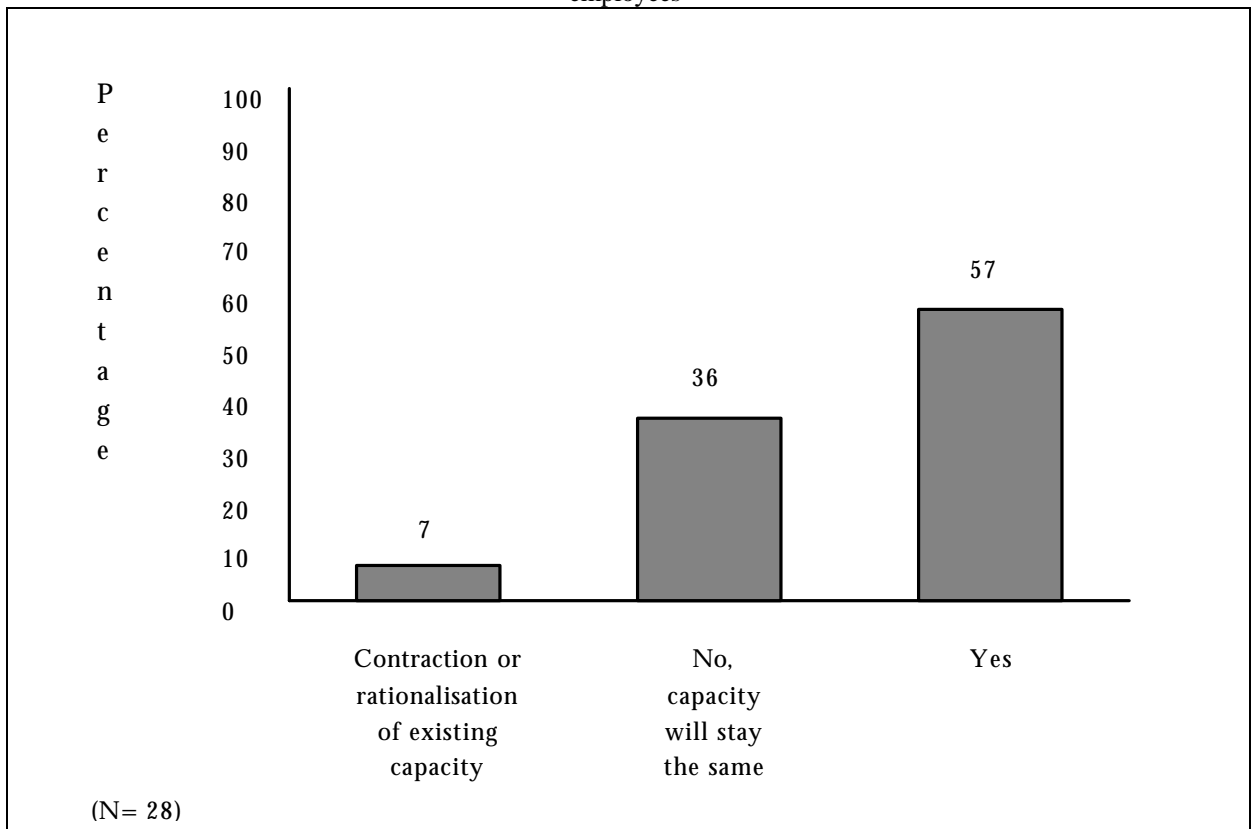


Figure 6.8: Expansion - significant capacity expansion planned in next two years firms with more than 200 employees



## CHANGING ATTITUDES AND EXPORT CULTURE

Significant attitude changes were also evident in responses about firms' key relationships:

- with their domestic customers
- with their workforce
- with raw material suppliers
- with packaging suppliers
- with transport companies, and
- with equipment suppliers, as indicated in Figures 6.9 and 6.10.

Figure 6.9: Relationships - relationship with domestic clients

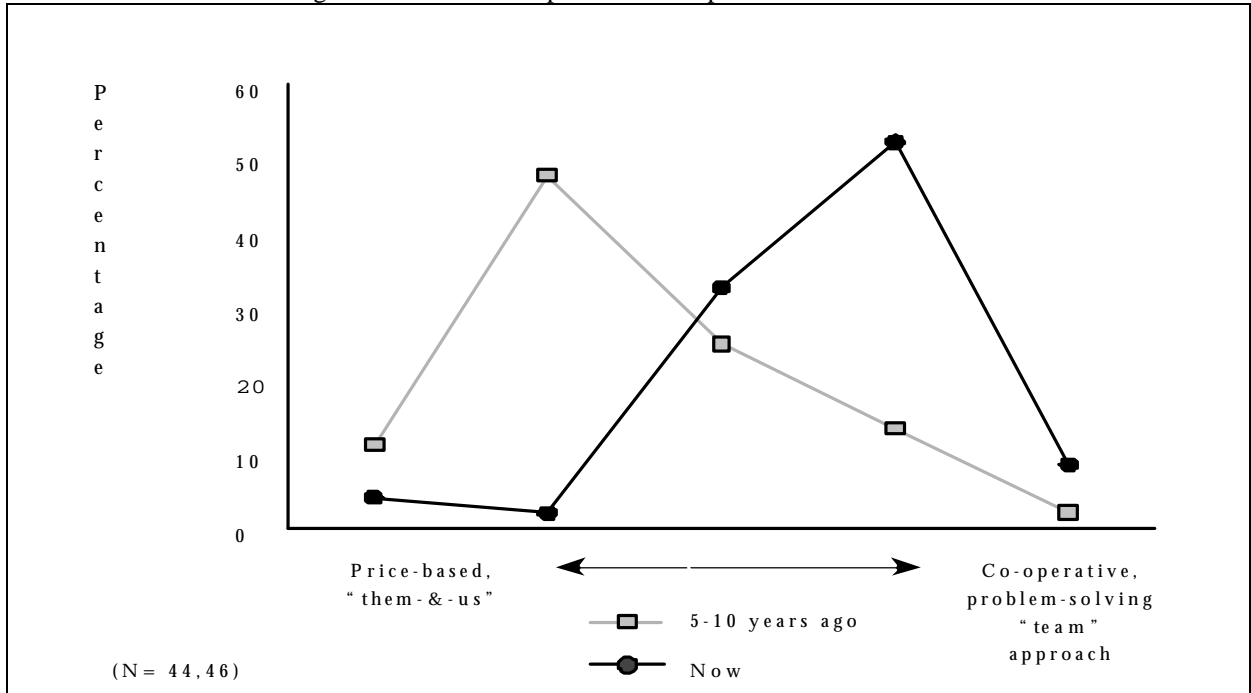
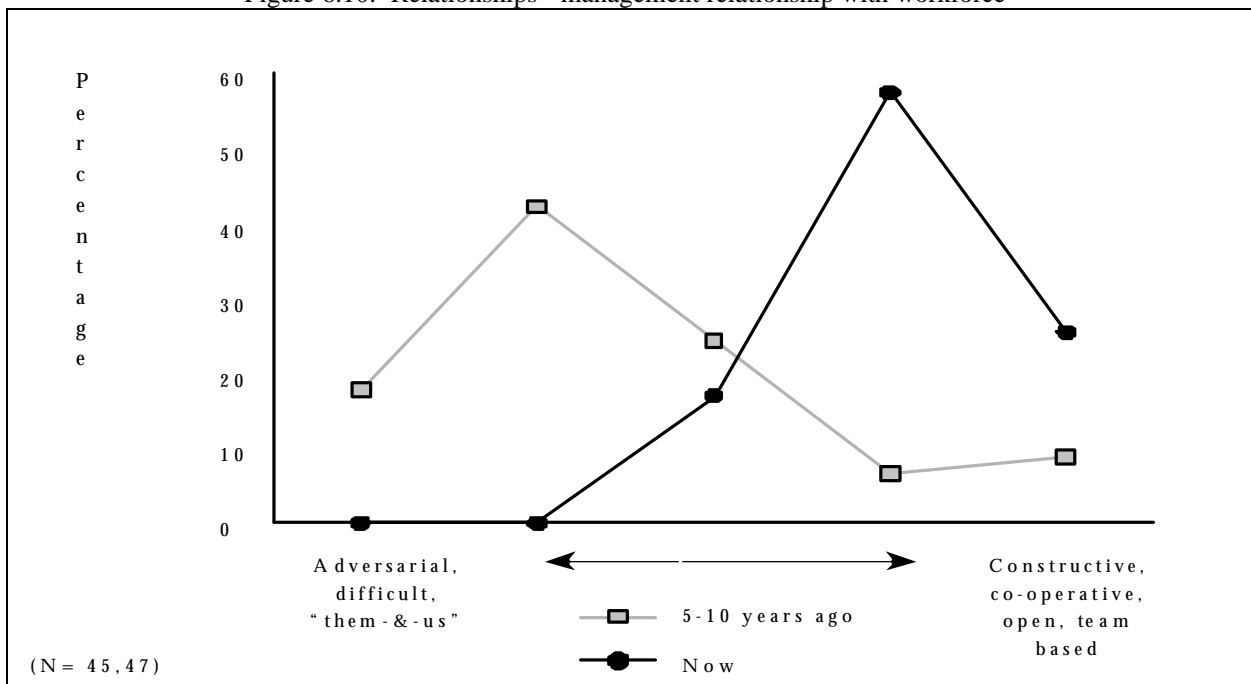


Figure 6.10: Relationships - management relationship with workforce



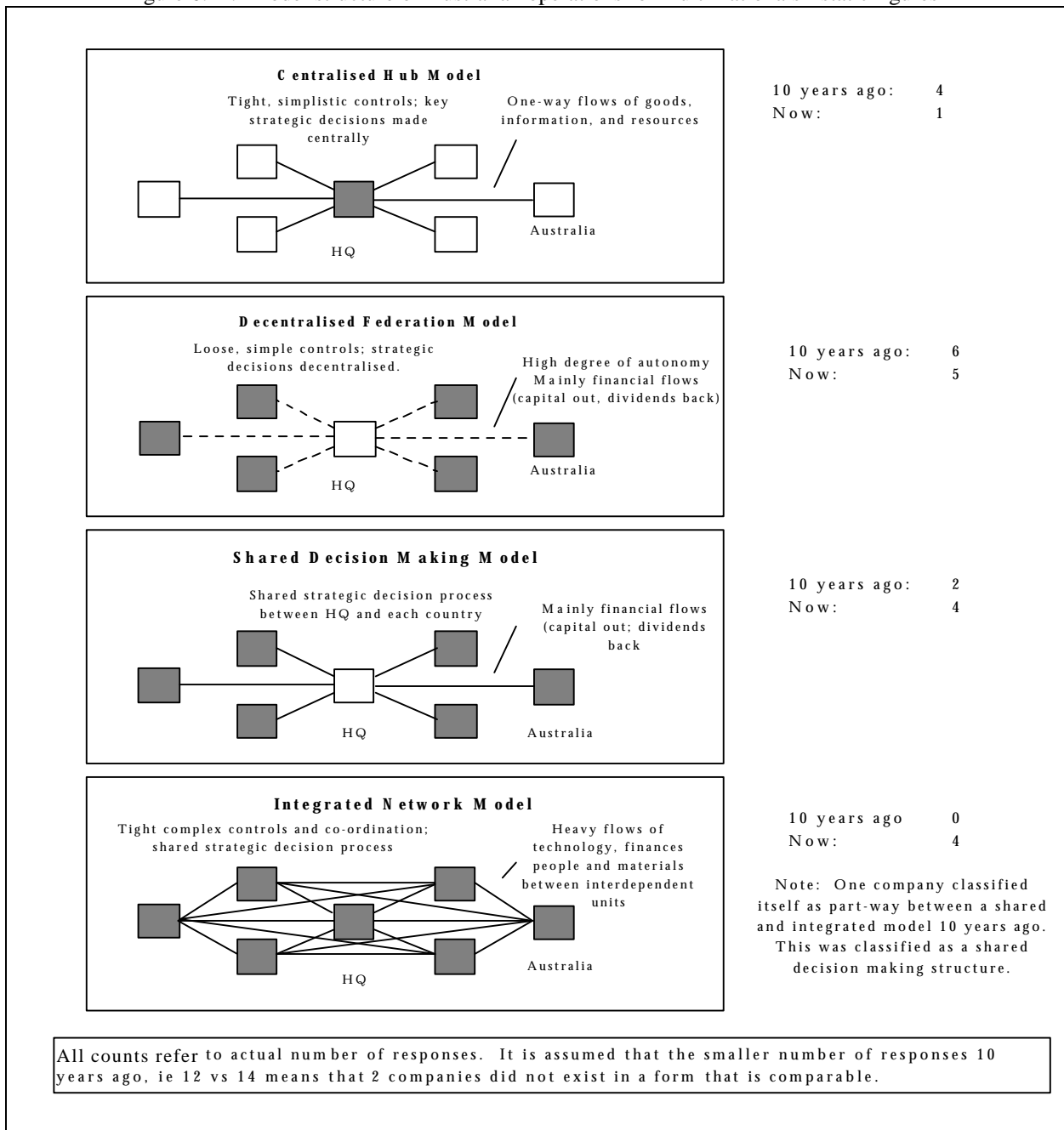


COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

Responses indicated that, for each of these relationships there has been a pronounced shift from a price-based, adversarial relationship to a cooperative team approach. Only two of the graphs are reproduced here, but similar patterns, from 5 - 10 years ago to now, were recorded for all the measures.

On a related question, multinational food companies recorded a general shift in their world wide organisational structure towards a shared decision-making model, that is a hub type structure, but with shared strategic decision process between headquarters and each country. In a few cases the companies had moved even further to an "integrated network model", a complex structure for transnational companies, involving heavy flows of technology, finances people and materials between interdependent units. These results are shown in Figure 6.11.

Figure 6.11: Model structure of Australian operations for multi-nationals - static figures



## CHANGING ATTITUDES AND EXPORT CULTURE

The survey questions tested the use of benchmarking for critically monitoring a firm's performance. Responses, shown in Figures 6.12 and 6.13, indicated widespread use of this relatively new technique, with 69% of respondents answering "Yes, to a limited extent" or an unqualified "Yes".

There was greater adoption of this technique by the larger companies with only 18% indicating that they do not use formal benchmarking to evaluate performance.

Figure 6.12: Benchmarks - Use of formal benchmarks to evaluate performance in developing new or improved products/services or new or improved production process/costs - firms with more than 200 employees

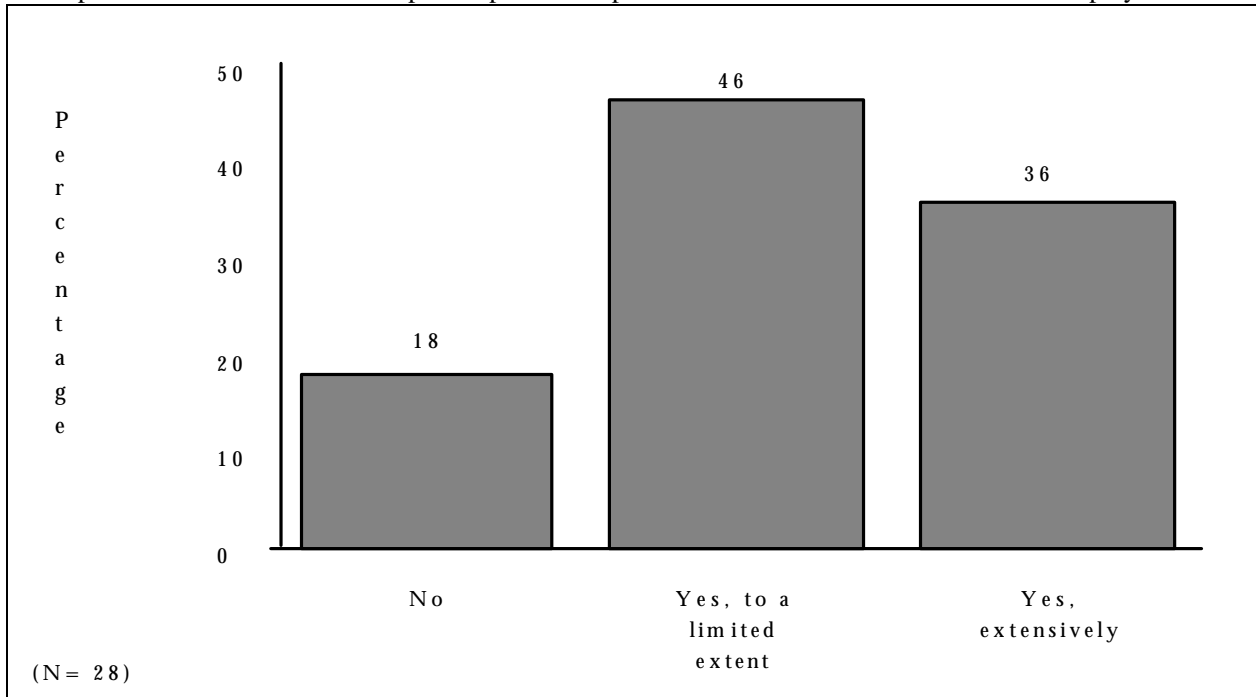
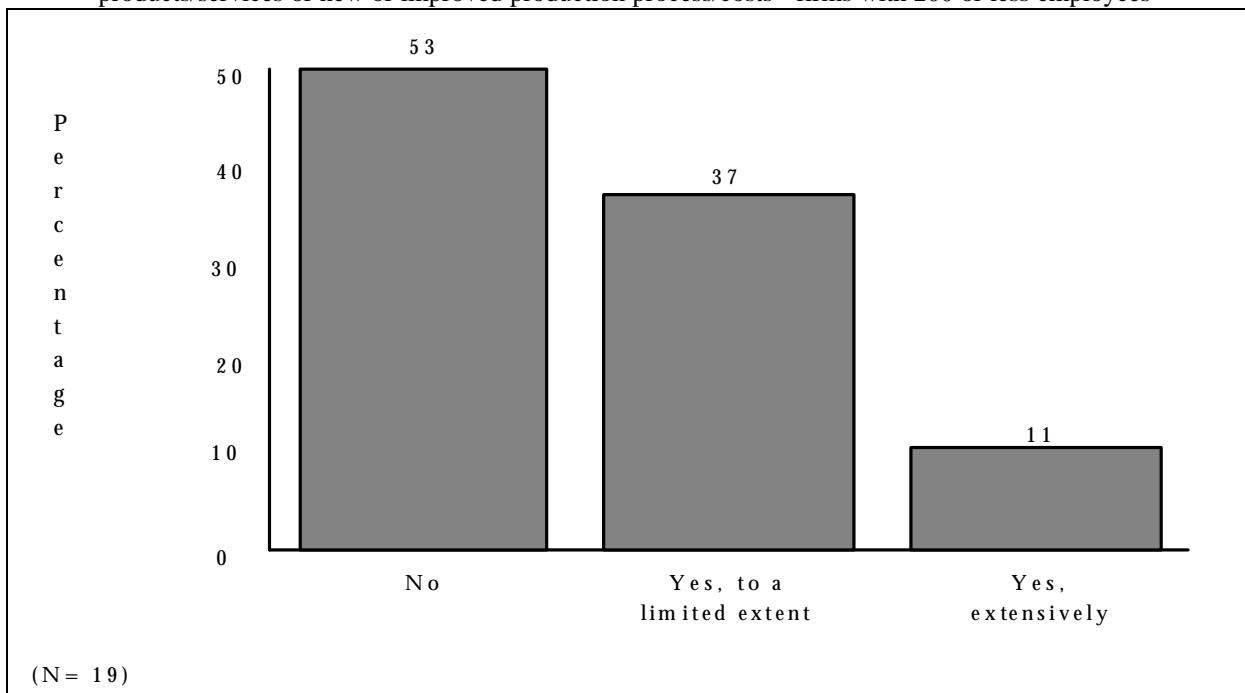


Figure 6.13: Benchmarks - use of formal benchmarks to evaluate performance in developing new or improved products/services or new or improved production process/costs - firms with 200 or less employees



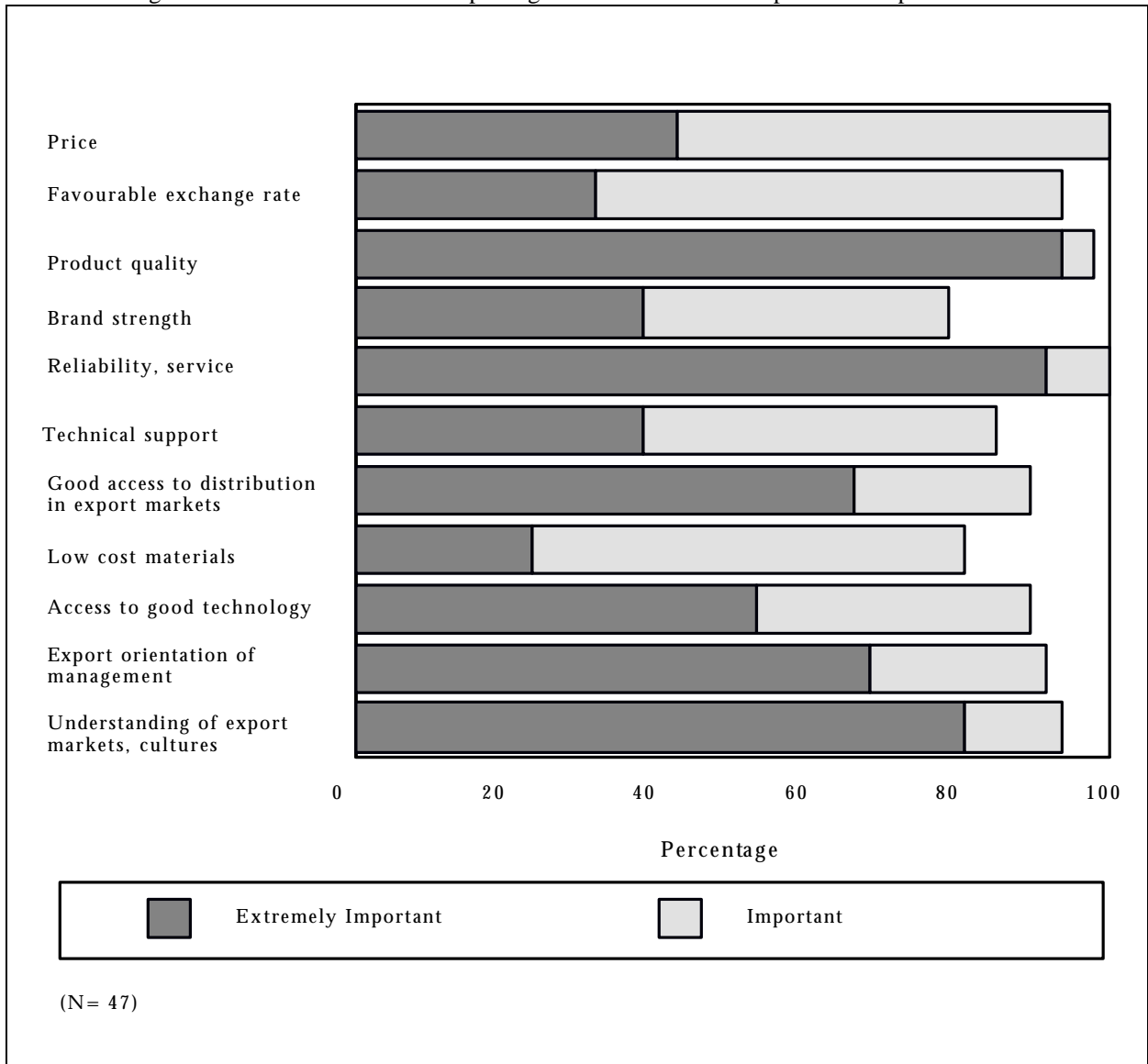
COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

Questions about factors considered important to export success suggest an appreciation, within the sample of companies, for the factors associated with selling value added food to demanding export markets (Figure 6.14).

In interpreting the information contained in Figure 6.14, the Committee has concentrated on those factors marked "extremely important". Almost all companies marked "product quality" and "reliability service", with "understanding of market export cultures" and "export orientation" close behind. There was relatively lower importance placed on "price", "exchange rate" and "low cost materials", which might have been the expected responses 5 to 10 years ago when commodity thinking dominated the industry.

More companies indicated non price factors (product quality, reliability and understanding of export markets) as "extremely important" in exporting. However, 100% of respondents rated price either as "extremely important" or "important", a result supported by the respondents emphasis on costs in later questions. The Committee concludes that there is now a wide awareness of the importance of quality, service and market knowledge in exporting but without detracting in any way from the continuing fundamental importance of price and costs.

Figure 6.14: Success factors in exporting - factors considered important to export success



## CHANGING ATTITUDES AND EXPORT CULTURE

Other major indicators of the attitudinal change are the increased importance attached to technical resources (Figure 6.15) and to innovation (Figure 6.16).

Figure 6.15: Technical resources in Australia - capital expenditure over past 5 years (approximate only)

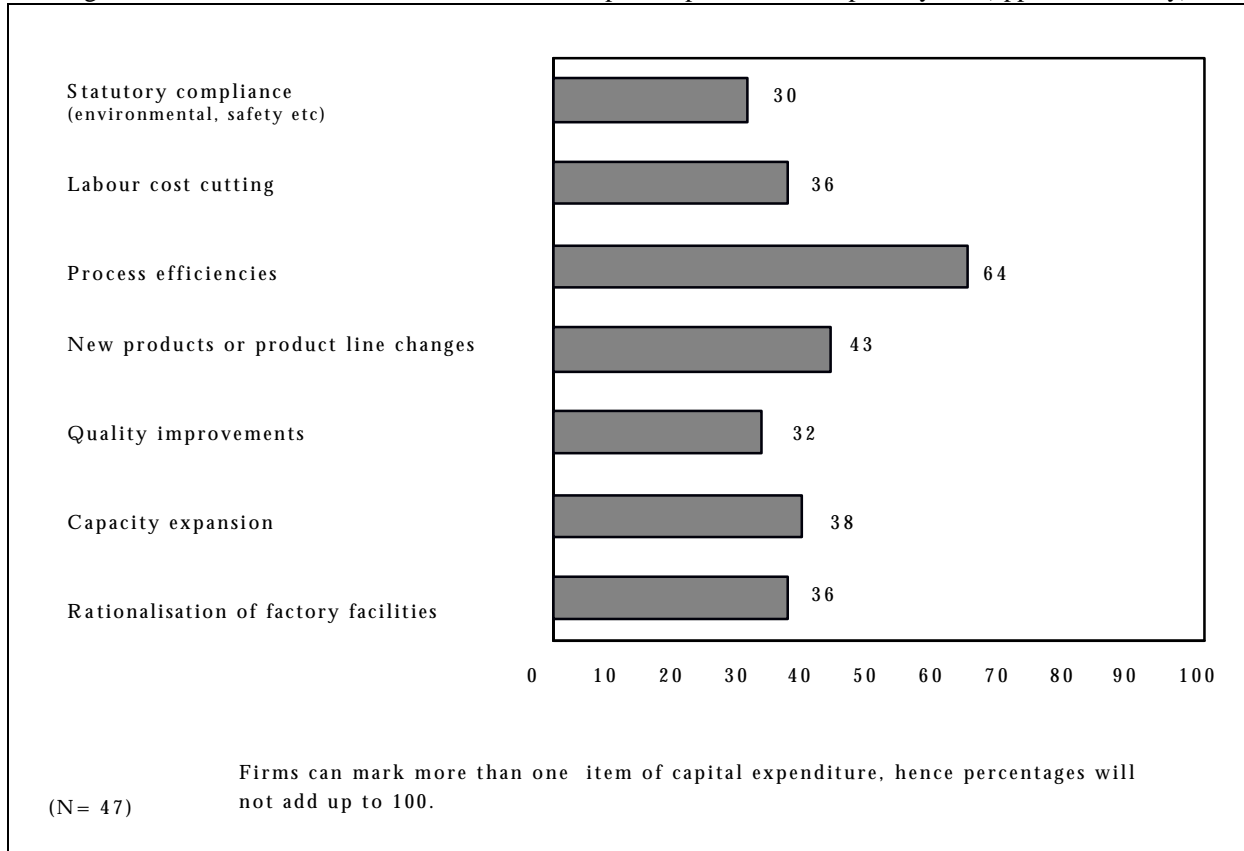
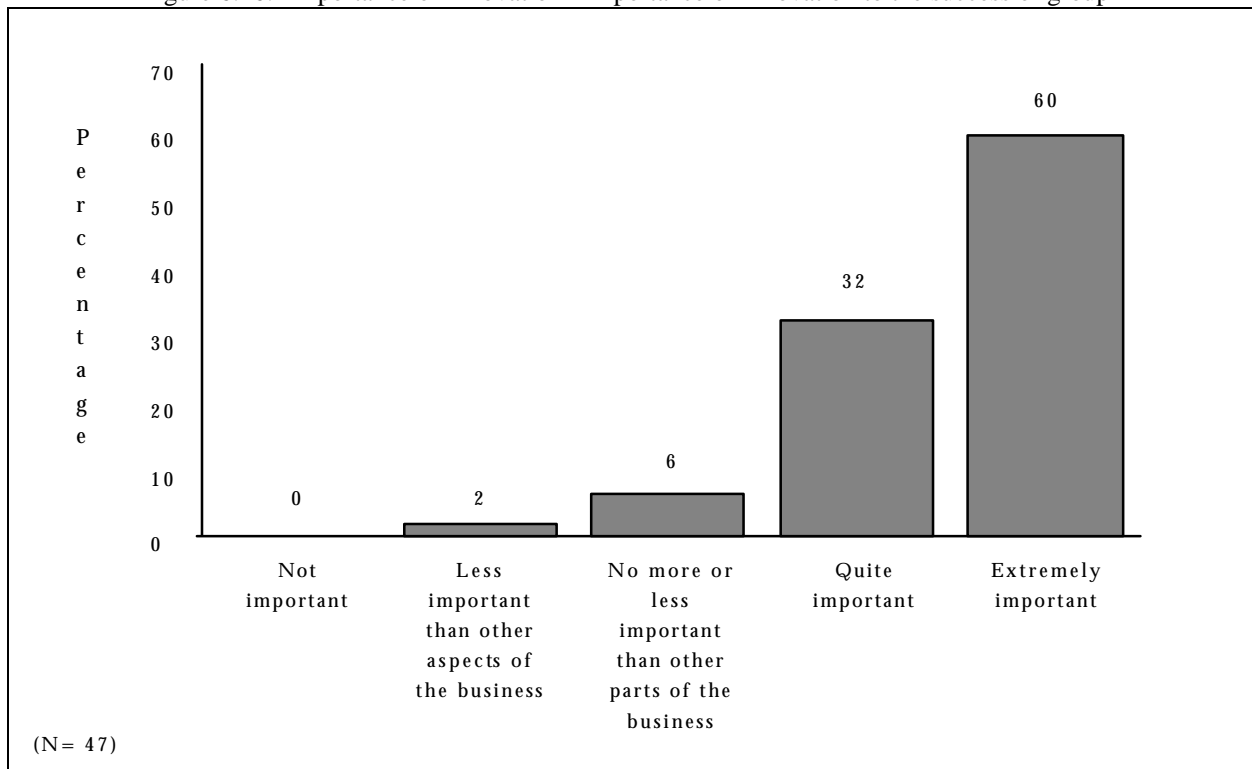


Figure 6.16: Importance of innovation - importance of innovation to the success of group



COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

The patterns of capital expenditure suggest that companies have been giving highest priority to improving process efficiencies. This result is supported by a high response to benchmarking for process technology and costs.

From Figure 6.17 it is clear that most companies have been focused on improving efficiencies and reducing costs which would seem to be consistent with those of other manufacturing industries in Australia. There is little evidence of major capital expenditure on new products, although this may occur once expenditure on cost reduction and process efficiency is further advanced.

Figure 6.17: Benchmarks - benchmarking practice

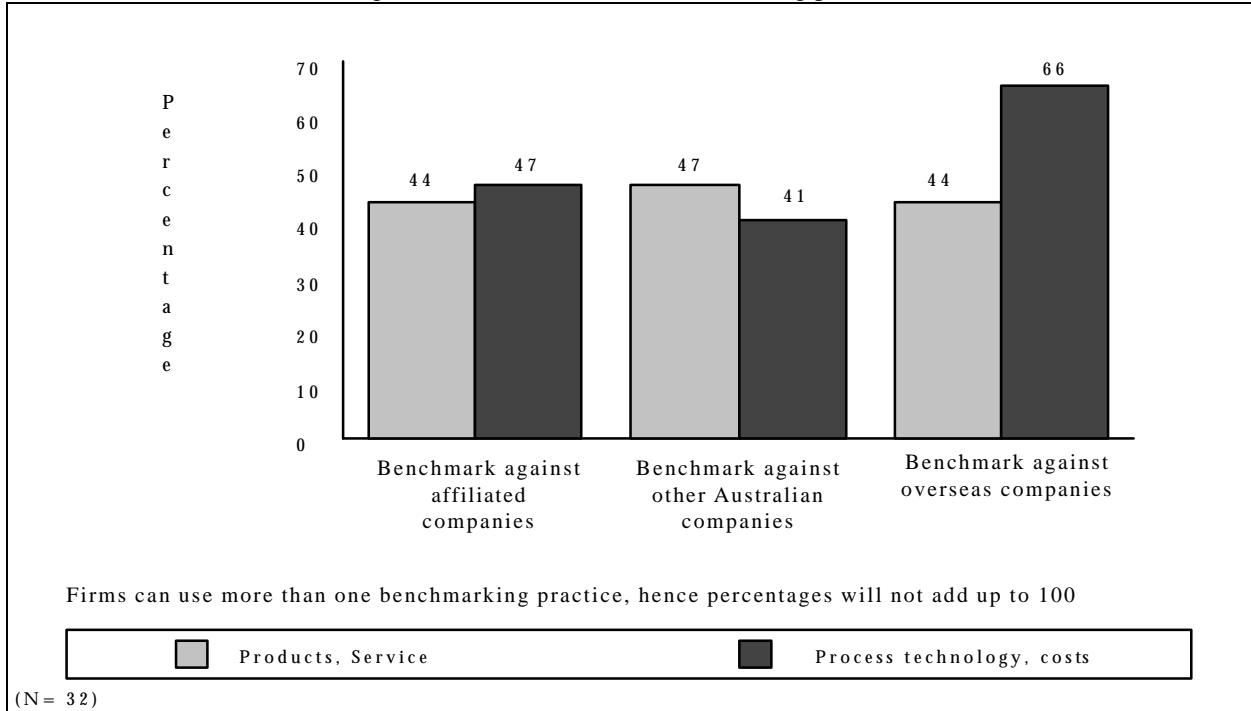


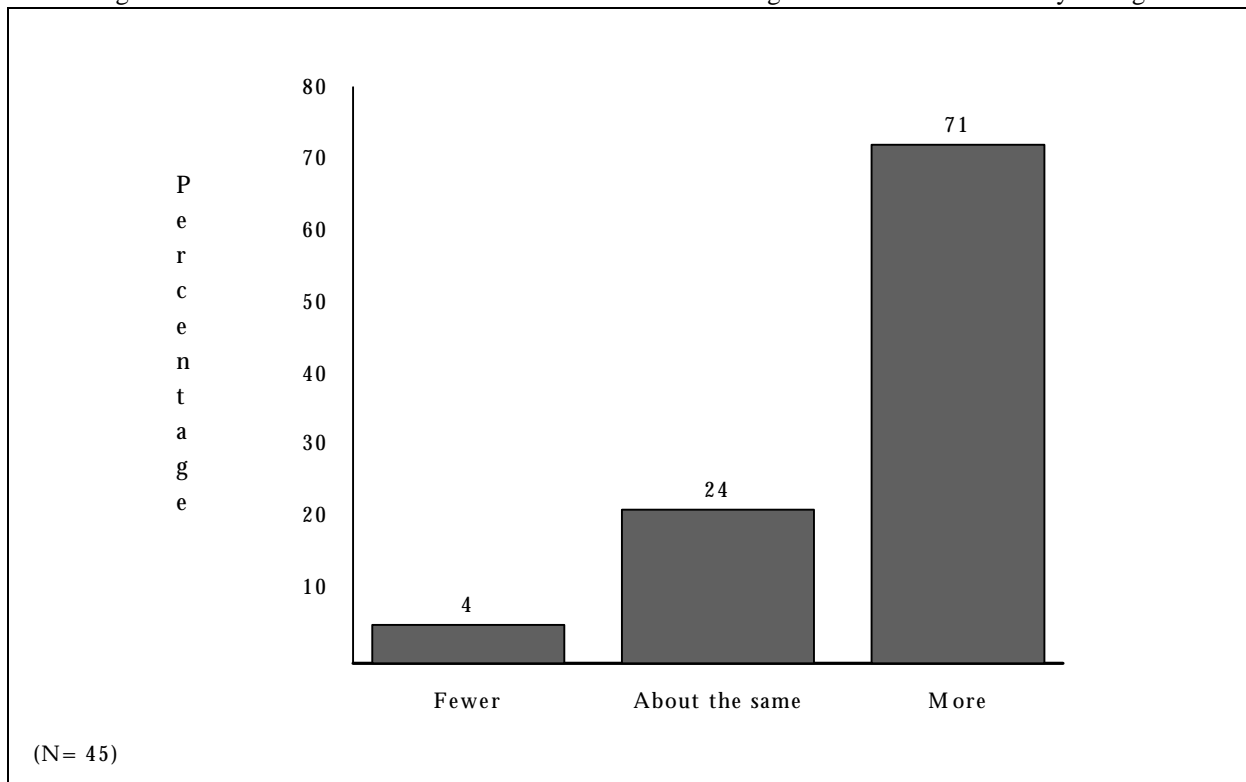
Figure 6.18: Treatment of innovation as an integral part of business plans



There were clear responses regarding the **Importance of Innovation** and **level of Technologists/Scientists** compared with 5 years ago (Figures 6.18 and 6.19).

It can be seen that a total of 92% of respondents rank innovation as "quite important" or "very important". In this respect innovation is defined in its broadest sense as a new way of doing things, for example, product/process/packaging/transport and marketing, and most respondents include innovation in their business plans (Figure 6.18).

Figure 6.19: Technical resources in Australia - more technologists/scientists now than 5 years ago



The recently released report of the Business Council of Australia "Managing the Innovating Enterprise"[2] has taken an even-broader view of innovation than outlined above. Innovation was defined as "something that is new or improved done by an enterprise to create significantly added value either directly for the enterprise or indirectly for its customers. The key result of innovation is additional value to the enterprise".

This broad definition gives rise to the following set of conclusions:

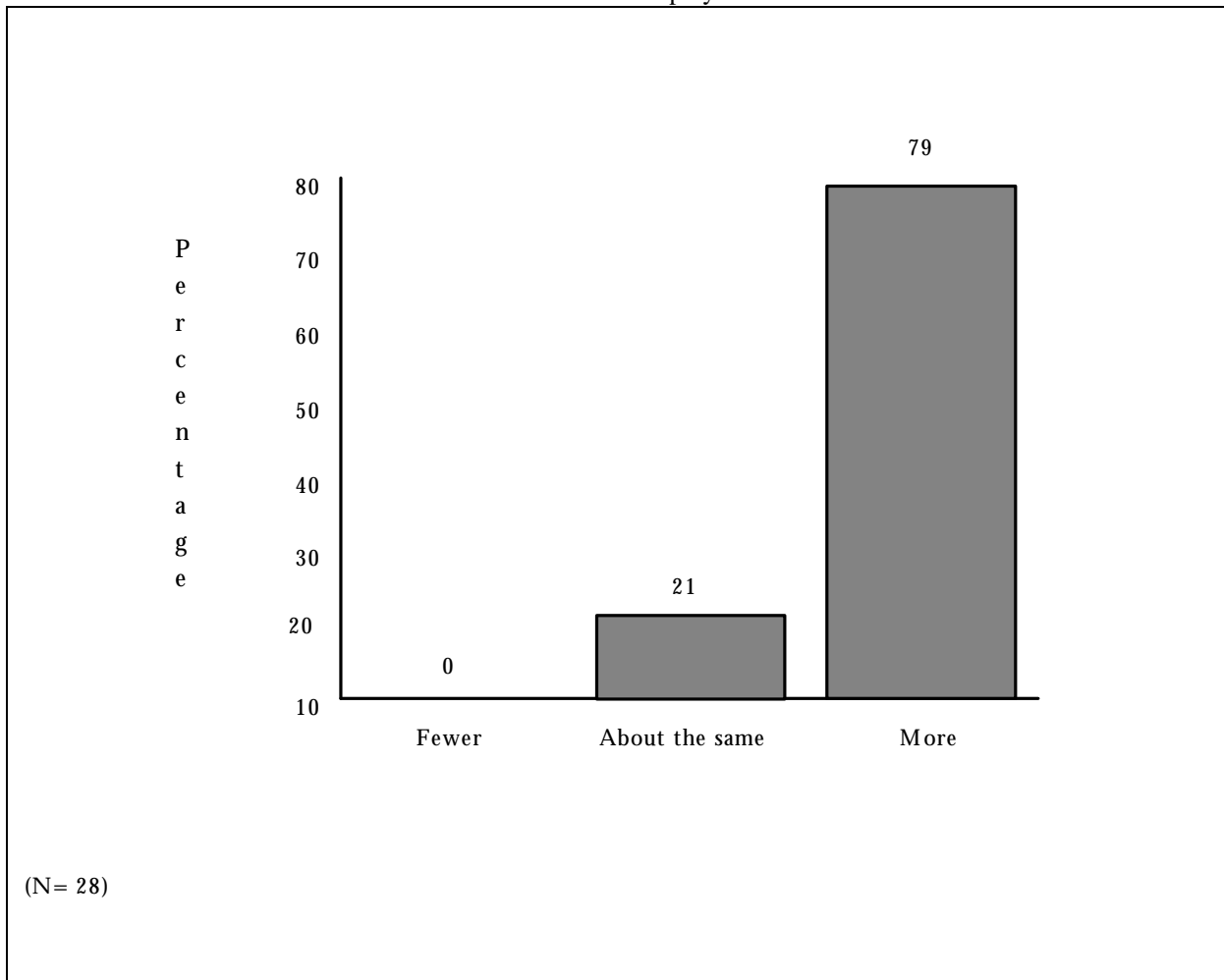
1. That innovation in Australia in the 1990s is about people and enterprises, not about science and technology.
2. That improvement and innovation are imperatives for Australian business in 1993 and for the foreseeable future.
3. That sustained success with innovation is the product of consistent, concentrated efforts by people in enterprises around five key factors: customers, supply, leadership, resources and systems for innovation.
4. That an enterprise focus within industry policy is needed that reflects a far better understanding of the nature of innovation in the enterprise in Australia.

The Committee accepts these views. In practice there is probably no dichotomy between the "customer-oriented, market driven" approach and this recent approach with its emphasis on continuously creating added value for the customer.

In the area of **technical resources**, most companies claim to be employing more scientists now than 5 years ago.

Of special significance for the food industry is the response from the larger companies to the employment of technologists/scientists shown in Figure 6.20. None of the larger companies has reduced the number of technologists/scientists and 79% indicated they employ more technologists/scientists than they did 5 years ago.

Figure 6.20: Technical resources in Australia - more technologists/scientists now than 5 years ago - firms with more than 200 employees



The Committee considers this a very significant finding in light of the increasing importance given to innovation as a key to industry and national competitiveness.

### 6.3 CAPACITY FOR EXPORTS

Companies were asked to indicate their current levels of plant utilisation (Figure 6.21) and whether their current operating levels represent spare capacity (Figure 6.22).

## CHANGING ATTITUDES AND EXPORT CULTURE

Figure 6.21: Current level of plant utilisation - Australian operations

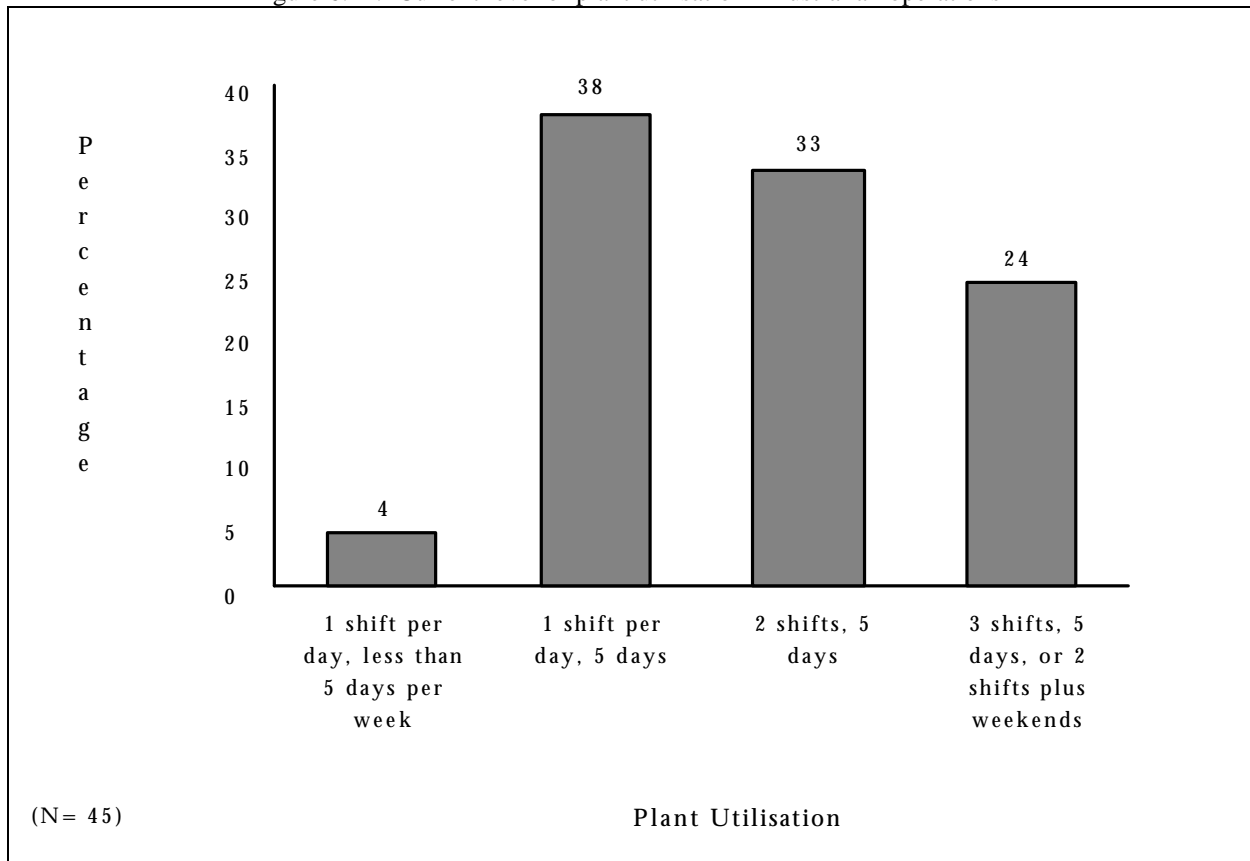
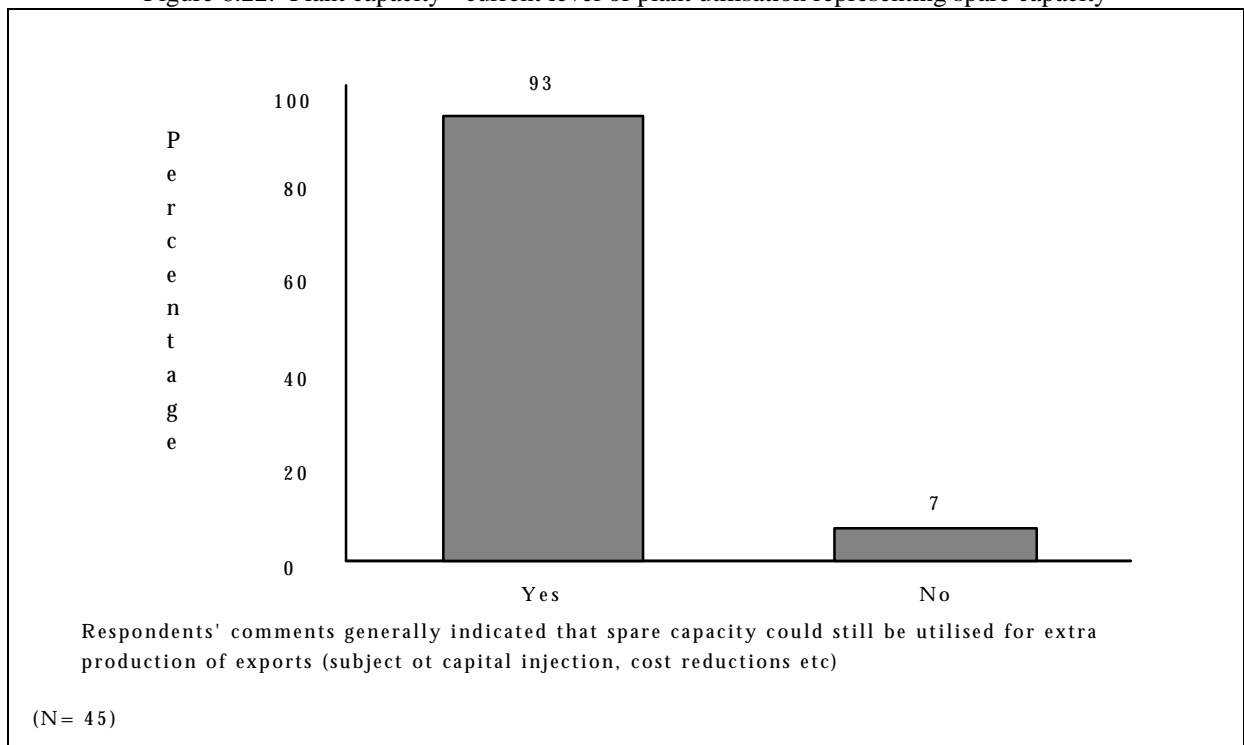


Figure 6.22: Plant capacity - current level of plant utilisation representing spare capacity



The responses to spare capacity were overwhelmingly "yes".  
The Committee sees these findings as important in a number of respects.



## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

- They indicate how many Australian food plants are still locked into low plant utilisation. Over 40% indicated that they were operating only 1 shift per day, 5 days per week.
- This under utilisation of plant represents a serious inefficiency in the Australian industry. In many cases, it would reflect the absence of an effective Enterprise Agreement, that would permit extended operating hours at an acceptable labour cost.

The use of idle capacity represents an important opportunity to marginally cost additional throughput and this is frequently the way, often the only way, into new export markets.

## 7 ATTITUDES AND NATIONAL COMPETITIVE ADVANTAGE

The Committee believes that some of the qualitative findings about the state of the Australian food industry, and changing attitudes, can be explained in terms of competitiveness theory. Although there are a number of such theories, these comments drew on Porter's seminal treatise on competitiveness [3].

Porter's work builds on a relatively simple model of the determinants of national advantage. The theory is that a nation is more likely to achieve international success in a particular industry if there exist the four broad attributes that shape the environment in which local firms compete (Figure 7.1).

Figure 7.1: The determinants of national advantage



1. *Factor conditions.* The nation's position in factors of production, such as skilled labour or infrastructure that are necessary to compete in a given industry.
2. *Related and supporting industries.* The presence or absence in the nation of supplier industries and related industries that are internationally competitive.
3. *Demand conditions.* The nature of home demand for the industry's product or service.
4. *Firm strategy, structure, and rivalry.* The conditions in the nation governing how companies are created, organized, and managed and the nature of domestic rivalry.

## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

The determinants, individually and as a system, create the context in which a nation's firms are born and compete.

Although the Committee has not undertaken a detailed analysis of these determinants for the Australian Food Industry, the model immediately suggests some explanations for the processed food industry's lack lustre performance to date:

- **Factor Conditions:** Australia is strong in the basic factor conditions such as natural resources, climate, availability of labour etc, and also relatively strong on the advanced factors such as specialist technical and research expertise.
- **Related and Supporting Industries:** This would include packaging suppliers, transport operators, equipment suppliers. Survey responses indicate only average performance, that is, the related industries in Australia are unlikely to confer efficient, early and rapid access to the most cost-effective inputs.
- **Demand Conditions:** Again, the Committee considers that Australia's industrial and retail food customers would *not* rank with the most demanding and sophisticated in the world.
- **Firm strategy, structure and rivalry:** Australia's relatively small home market and dominance by large foreign-owned food companies have not led to vigorous domestic rivalry and the creation of competitive advantage for the industry.

Porter also acknowledges the role of government and chance events to complete the model of international competitiveness. He maintains that government's role in national competitive advantage is in influencing the four determinants. In a comment that seems relevant to the government's proper role in the Australian food industry, Porter asserts that "Successful policies work in those industries where underlying determinants of national advantage are present and where government reinforces them. Government ... can hasten or raise the odds of gaining competitive advantage (and vice - versa) but lacks the power to create advantage itself".

Most importantly, the food industry's advances into Asia and other export markets will expose firms to tougher customer demands. This will not be quite the same as tough home demand but will challenge and lift the competitiveness of the Australian firms which operate in these export markets.

A final point from Porter's work throws some light on the question of why Australia's processed food industry has not performed better, given the abundance of high quality food materials.

Porter notes that such natural advantages can lead to inefficient deployment of resources and actually weaken a nation's competitiveness. On the other hand, "selective factor disadvantage", or adversity, can create pressures to innovate around the disadvantages and can ultimately lead to powerful world competitive industries. For example he cites the high costs and poor infrastructure which contributed to the development of Italian mini steel mill technology; the cold, grey climate in Holland which helped create the glass-house growing, breeding and associated techniques in the Dutch cut-flower industry.

Porter alludes to the inhibiting effect of abundant resources, and specifically mentions Australia:

"America stands alone among nations, with the possible exception of Sweden, in processing abundant natural resources *and* achieving a significant international position in sophisticated manufactured goods. Canada and Australia, other nations with

abundant resources, have largely failed to move beyond them.”

The Committee sees considerable merit in this view and suggests rejection, or at least review, of traditional thinking that assumed Australia’s natural resources would ensure success in food processing.

**Recommendation 1**

**The Australian processed food industry should de-emphasise the abundance of, but not the importance of, low cost food materials.**

## 8 THE REFORM PROCESS

### 8.1 AGRICULTURE REFORMS

In the early 1990's there was considerable activity by various committees who represented the food industry, food industry associations and government, with a view to resolving the impediments facing the food industry and preparing the industry for the anticipated growth. This activity included the Industry/Government Working Groups (May 1991), the Food Processing Reference Group, the Grocery Manufacturers Association (GMA) and others.

The work culminated in the Commonwealth Government announcing a wide-ranging Agri-Foods package, with measures to boost exports of fresh and processed foods, particularly to Asia.

The joint media statement issued by Ministers Button and Crean indicated that the Government will spend \$12.7 million over 4 years to encourage greater efficiencies in food production, more cooperation between food producers, processors and marketers and a sharper focus on the development of international markets.

It was in this statement that the Government confirmed the view that the food processing industry could increase high value-added exports from the current \$2.3 billion each year to more than \$7 billion by the end of the decade.

The Agri-Foods launch referred to the joint efforts of the major industry players and Government and emphasised that the package was not intended to subsidise production, but "to create a climate of change in the food industry".

The package included:

- \$5 million to promote Australia's image in Asia as a supplier of clean, quality foods.
- \$3.75 million for language and literacy training in the workforce. In a related announcement Industrial Relations Minister, Sen. Peter Cook stated that:  
"The language and literacy training is aimed at overcoming the poorly developed functional language and literacy skills of an estimated 50 per cent of the industry's workforce. This is a fundamental impediment to improved productivity as these communication skills are a pre-requisite to equipping the workforce with the technical skills associated with new production processes".
- A 4 year, \$800,000 program to create networks of processing companies, producers and marketers, in order to jointly realise export opportunities.
- An umbrella agreement between Unions, Management and the Government, later known as the "Memorandum of Understanding".
- Tariff free importation for certain food processing inputs.
- Greater access for food companies to the Government's export development program ITES.
- Establishment of an eleven member Agri-Food Council, with responsibility for driving the development and internationalisation of the food sector. The announcement stated that the new Council is to provide leadership to resolve the range of complex issues and will have overall responsibility for promoting an export culture in the industry and implementing the initiatives announced in the Agri-Foods package.
- Formation of a Processed Foods Market Access Committee to gain improved access for Australian processed food products. The former Minister for Trade and Overseas Development, John Kerin, stated that "the primary function of the Committee will be to advise on priorities for bi-lateral negotiations and develop coordinated strategies with

industry".

Flowing from an original objective to include innovation, the Agri-Food Council formed an Innovation Working Group, with two major objectives:

- 1) To identify the important research needs and areas of technological competency necessary to underpin the growth in innovation in the Agri-Food Industry.
- 2) To establish mechanisms by which the coordination of food science and technology could be made more effective in Australia to identify researchers and institutions to provide a world-class research capability in the areas of important core technology.

Respondents to the Academy survey confirmed this general level of support for the Agri-Foods reforms, although it was evident that, some 18 months after the package was announced, many chief executives of the food companies were not very clear on the role of the Agri-Foods Council, the other reforms and the way in which the reforms will affect their businesses. It appears to be important for the Agri-Food Council to promulgate more widely throughout the industry the nature of its work and thereby institute the two way communication and involvement which is necessary to achieve the vision.

#### **Recommendation 2**

**The Committee recommends that the Government maintains its support of the Agri-Foods Strategy.**

## 8.2 WORKPLACE REFORM

Workplace reform refers to the process whereby employers, employees, unions and industry associations implement new ways of thinking, managing and working to achieve a more efficient and profitable industry, with fulfilling and secure employment.

As an important sector of the Australian economy, the food industry has received attention from the Commonwealth Government and the ACTU, as a consequence, there have been a number of tri-partite initiatives, that is Government, Union Movement and Employers.

A Memorandum of Understanding ("MOU") was developed in the context of the Commonwealth Government's Agri-Food Industries Statement of July 1992, and was released on 26 February 1993. The stated purpose of the MOU is to engender a commitment to workplace reform and investment across the food industry.

Since the MOU is a statement of intent, the primary responsibility for carrying out the reforms, and for monitoring the Memorandum, lies with the parties themselves. However, in the MOU the parties agreed to assist the Agri-Food Council with progress reports on the contribution of sound industrial relations to company performance.

The MOU includes a list of key issues which the parties need to address for successful workplace reform, for example:

- Commitment and a sense of urgency
- Analysis of areas relevant to company performance
- Small to medium sized businesses

## THE REFORM PROCESS

- Effective consultation arrangements
- Effective dispute prevention and settlement procedures
- Rationalisation of Union representation at enterprise level
- Review of award structures
- Vocational training in the food industry
- Literacy and numeracy skills
- Adoption of International best practice, including joint development of performance indicators.

The MOU has been most effective as an expression of goodwill and commitment to the reforms needed in the food industry. It appears to have captured the spirit of change from adversarial approaches in industrial relations, towards a more constructive, cooperative team based approach.

However, many respondents to the survey commented that the pace of microeconomic reform in Australia is too slow. The reform process itself appears to be frustrated by delays and complexities resulting from the multi-layered, multi-state system of industrial relations in Australia. The parties must somehow reach agreement on the specific actions, responsibilities and timetable to make sure that effective enterprise and workplace agreements are adopted across the industry.

### **Recommendation 3**

**The Committee recommends a review of the aims and achievements under the 1993 Memorandum of Understanding with the specific intention of accelerating workplace reforms in the food industry.**

### 8.3 MICROECONOMIC REFORM

Microeconomic reform refers to "all those actions taken by governments which aim to improve the efficiency with which resources are used in the production of goods and services"[4]. It is a key to achieving improved international competitiveness and with it, an improvement in living standards.

The microeconomic reform process involves exposing firms - private and government owned - to greater competition, which forces the most productive use of resources and the most efficient methods of production.

The food industry has a number of areas of potential reform, some of which are common to all manufacturing industry and some are unique to the food industry.

- Agriculture: Reduced Government assistance and reform of statutory marketing arrangements. Manufacturing: Continuing tariff reduction; enterprise bargaining and other labour-market reforms. Infrastructure: Electricity, gas and water, road and rail freight; the waterfront and shipping.
- Food legislation.
- Export inspection and certification.
- Public Administration and services.

With regard to general microeconomic reform issues, the Committee notes that the Bureau of Industry Economics (BIE) is conducting a review of International Performance Indicators, a project initiated in the Prime Minister's Statement of 12 March 1992 "Building a Competitive Australia". The project is also sponsored by the Business Council of Australia who have recently (Feb 1994) released the first overview report.

The following sample of comments from the BIE report highlight the critical nature of these reforms:

"The competitiveness of Australian enterprises in international markets is determined in part by the costs of inputs and services of Australian infrastructure which make up between 10 and 25% of total costs for most industries.

The provision of infrastructure is dominated by Government business enterprises, many of which are not directly subject to competitive pressures.

The key result emerging from the BIE's International Performance Indicators project for Australian infrastructure is that while significant progress has been made in this important area of microeconomic reform, *much remains to be done*. Recent reform initiatives have tended to narrow performance gaps between Australian infrastructure industries and observed international best practice, but in some cases the *performance gaps remain wide*"[5].

The BIE stated that the results suggest the degree of competition within an infrastructure industry and the rate of change of demand and technology are key determinants of infrastructure performance. The industry where Australia's performance is closest to international best practice - road freight - enjoys by far the greatest degree of competition while the industry, where the performance gap is largest - rail transport - suffers the least degree of competition and the highest degree of Government involvement and subsidisation.

With respect to microeconomic reform issues specific to the food industry the committee makes the following observations.

#### **Recommendation 4**

**The Committee supports calls, from many industry bodies, for the Government to accelerate the microeconomic reform agenda in Australia.**

### **8.3.1 FOOD LEGISLATION**

Recent reforms have included the establishment of the National Food Authority (NFA) which has provided for accelerated development of food standards and opened the way for the reduction of the prescriptiveness of food standards, a greater consistency between standards and, where appropriate, the use of industry codes of practice.

The Australian Quarantine Inspection Service (AQIS) has been in existence for many years but has also been the subject of various reviews and, in some cases, recommendation for reforms.

The Committee received many comments from CEOs regarding the operation of AQIS



## THE REFORM PROCESS

and the NFA and must record that there is a widely held perception that these bodies are not delivering the service expected of them by the food industry.

The Committee is not in a position to judge whether there is foundation for these comments but recommends that the perceptions about AQIS and NFA be addressed as a matter of urgency. Otherwise, such perceptions could adversely affect the performance of Australian food companies in domestic and export markets.

The Committee understands that the structure and practices of AQIS and the NFA have been reviewed by the Agri Foods Council, but is not aware of the results.

### **Recommendation 5**

**The Committee recommends that the adverse perceptions of AQIS and the NFA frequently held by the food industry be addressed as a matter of urgency.**

### **Recommendation 6**

**The Agri Foods Council should initiate a review of export certification requirements that are seen to disadvantage food processors in the export of foods.**

## 8.4 GOVERNMENT ASSISTANCE PROGRAMS

One of the areas that attracted considerable comment from chief executives of food companies, both in the interviews and as additional comments to the questionnaire, was government assistance programs.

At the outset, the Committee should point out that the list of programs in the original questionnaires had some errors and was incomplete. For example, there are many NIES programs not listed. However, the Committee believes that the respondents leave no doubt as to their views as shown by the results in Figures 8.1 and 8.2.

Programs such as Export Market Development Grants (EMDG) and the 150% R&D Tax Concession and NIES, shown as “world class manufacturing”, are widely known and used in the industry.

The Export Finance Insurance Corporation (EFIC) is used by slightly more than 20% of respondents, which seems conceivable for their important but specialist functions; the Best Practice demonstration program, likewise, is known by about half the respondents of whom slightly more than 50% have actually participated in it.

Apart from the EMDG, 150% R&D Tax Concession and NIES programs, the other government programs do not appear to have particularly strong awareness or usage in the food industry. Because the list of programs in Figure 8.1 is incomplete, the Committee does not believe it is amenable to further interpretation. However, such a question and the survey results, could form the catalyst for a more detailed review.

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Figure 8.1: Government Assistance Programs - Government Programs Known and Used

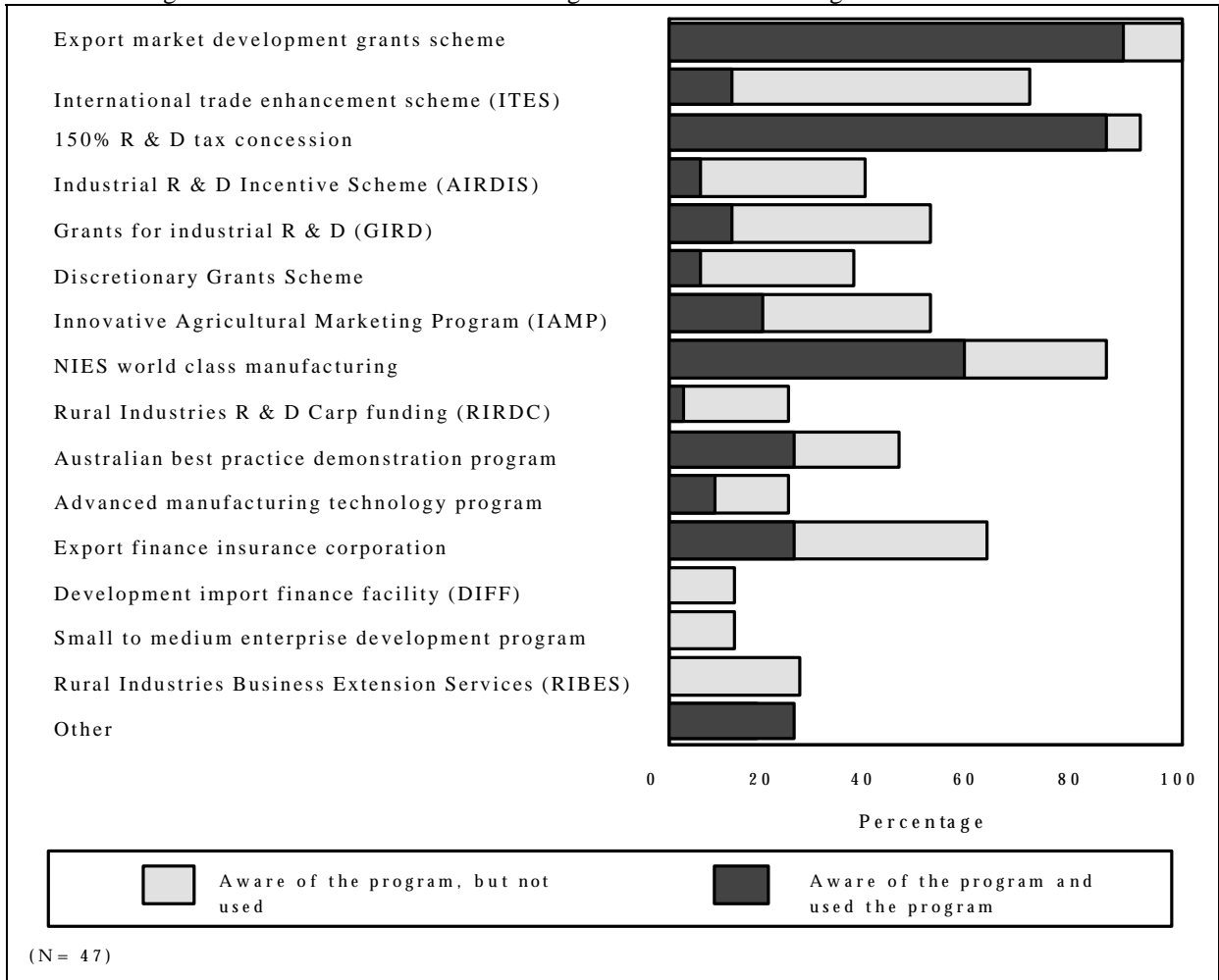
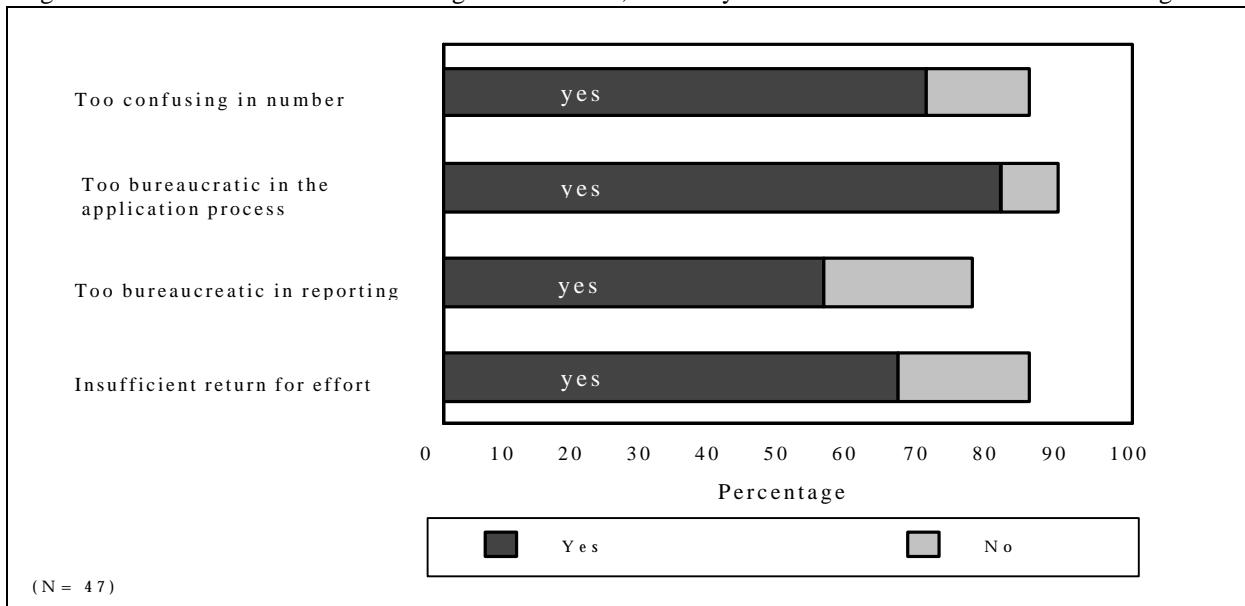


Figure 8.2 regarding attitude to **Government assistance programs** provided some of the most unexpected findings of the survey.

Figure 8.2: Government Assistance Programs - Overall, how do you find the Government Assistance Programs:



On reflection, the Committee believes that a continuum of possibilities and answers may have been preferable to the yes/no format and the leading nature of the questions might have been avoided.

However, subject to the above qualifications, the industry's message is very clear. In addition, as if to remove any doubt about industry views, most respondents volunteered additional comments in the space provided in the questionnaire and many CEOs voiced similar concerns in the interviews.

Again, it is difficult for the Committee to test any further the accuracy of the views, or the reason why such views are held. However, there appears to be a problem with the delivery of Government assistance programs and the Committee offers the following recommendation.

#### **Recommendation 7**

**The Committee recommends that the Agri Foods Council should examine all existing Government assistance programs as they relate to the food industry with a view to identifying those with most relevance to food companies, improving their accessibility, and communicating the total package to food industry participants.**

### 8.5 STATE GOVERNMENT FOOD STRATEGIES

Apart from the Commonwealth Government initiatives, reforms of the food industry are also occurring under the auspices of various State Government plans or strategies. Each State has adopted a different approach to such plans, they are at different stages of development and involve differing levels of commitment and resources. Victoria, Tasmania and possibly Queensland appear to be relatively further advanced than the other States but there are signs that some of the others wish to develop and pursue strategies specifically relating to food.

The Committee was exposed to some of the plans at State level and generally endorses the efforts. From a number of comments by CEO's it appears that there are some Commonwealth Government programs that can be effectively delivered at State/regional level, rather than from Canberra. The jointly-funded NIES programs appear to have been successfully delivered by the States representatives.

Other strategies are being adopted by the State Governments with respect to food processing. The following notes refer to the Victorian State Government initiative, "Food Victoria", as an example of what is being undertaken at State level. Typically, the State Government initiative flows from a consultant's review of the sector; in Victoria's case Pappas Carter Evans and Koop [6] conducted a detailed assessment of "Impediments to Cost Competitiveness in Victorian Food Processing" in 1991.

Food Victoria was subsequently established with the stated objective:

“to clear away obstacles to investment, expansion and employment in the food and food processing industries and to encourage a highly competitive production chain from the farm to the marketplace”.

It functions through high level representation of both industry and the State Government of Victoria. The Food Industry Advisory Committee (FIAC), chaired by the Premier, involves representatives from the farm sector, transport companies, food processors, research and

## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

development, and marketing and retail companies. FIAC reports directly to the Food Industry Cabinet Sub-Committee. A Taskforce of senior departmental officials coordinates prompt Government action in response to key issues raised by industry.

Food Victoria involves industry and Government working together to:

- identify and remove impediments to growth and market development;
- promote and assist investment in Victorian food-based industries;
- improve the flow of market information throughout the food industry and Government;
- encourage Victoria's food-based industries to identify new market opportunities in both domestic and export markets; and
- set the direction for Victoria's food and food processing industries.

At the department level, the process involves:

- identifying the major market opportunities;
- identifying those companies with the best chance of realising the opportunities;
- identifying any obstructions to those companies' development;
- focusing as a priority on issues where there is a prospective investment; and
- identifying a specific role for Government.

In the relatively short time since the establishment of Food Victoria, the parties appear to have addressed and acted on many of the important issues confronting this important sector of the State's economy.

## 9 FOOD SECTOR PLANS

The Committee recognises that an important outcome of the Agri-Food Strategy has been to establish a vision and focus for the future development of the food industry. In the course of the Committees' deliberations it became clear that the same clarity of vision and focus did not exist for each sector within the food industry.

Whilst recognising that individual firms must of course retain that independence and responsibility for competing at the level of the firm, the Committee is firmly of the view that there are many issues that are common to all firms in a sector which can be best addressed by a sectoral development plan.

Such common issues might include long term research (strategic research), sector regulation and quality assurance systems.

The following pages briefly describe two sectors, with very different approaches. The Australian Wine Industry, which appears to have united its members for an assault on international markets and the Seafood Industry where the participants themselves are quick to observe lack of cooperation and coordination as a sector. It is thought that other sectors of the Australian food industry would fall somewhere between these two extremes.

The primary responsibility for developing such plans would of course be with the sector companies. There, however, may well be a role for Government via the Agri-Food Council to facilitate the development of such sectoral plans. Once such plans are established it will be much easier for Governments at all levels, the industry participants themselves and the supporting organisations such as research bodies, to identify their respective roles and to work collaboratively and efficiently towards the identified objective.

### 9.1 THE AUSTRALIAN WINE INDUSTRY

For a number of years, the exports of Australian wines have been increasing at more than 30% pa. Wine exports have grown tenfold over the past 6 years and the industry plan to further increase its exports from about \$300 million pa to \$1 billion by the end of the 1990's.

Although past growth has been due to the efforts of a number of individuals and organisations working independently, in recent years the industry has formed a number of key organisations to plan and co-ordinate the central activities.

Recent developments include:

- Formation of the Winemakers Federation of Australia in 1990. This is the peak industry body with voluntary membership representing some 95% of the annual wine crush.
- Corporatisation of research activities into the Grape and Wine Research and Development Corporation (1991).
- Formation of the Australian Council for Viticulture, the policy coordinating body for research and educational activities. This Council has been awarded a CRC grant for reducing chemical usage in grape growing. Additionally, the Council will offer a four year oenology and viticultural course to equal those available overseas.
- Formation of the Australian Wine Export Council (AWEC) in 1992, whose members are all Chief Executives of Australian Wine companies, with additional members invited onto the Council, from time to time, for their expertise. The AWEC is chaired by the Chairman of the Australian Wine and Brandy Corporation (AWBC).

As summarised by Sutton [7], the Industry believes:

"We have the bases covered in terms of Research and Development, Education, Health Research, political advocacy and through the Statutory Marketing Authority, the Australian Wine and Brandy Corporation, a strict regulative process relating to product, compliance monitoring, the Label Integrity Programme and the role of Export Market Development and Regulation".

Developments such as formation of the AWEC show a clear understanding, within the wine industry, of the need to draw together the major industry people, those who have the experience, who have taken the risks and who are directly responsible for the well-being of their stakeholders, in the rapidly expanding domestic and export markets.

A significant contribution of the AWEC has been the development of a five year plan for the industry. This is a long term plan that systematically works from detailed estimates of market potential, through production estimates, to a timetable for planting, quantities, varieties and timing. The plan also covers harmonisation of research and development efforts, promotional presence in various markets and related matters.

Funding of the industry bodies has been by Government and industry. For example, the recently formed AWEC is funded by each of the companies which take positions in the respective markets, together with funds provided by the AWBC and Government programs. As a result, the AWEC has achieved its target funding of some \$11 million for a 5 year period.

It appears that the success of this sector can be attributed to:

- i) Structures and programs that are totally market oriented and driven by the industry leaders themselves.
- ii) A partnership between the industry and Government in appropriate areas, for example co-operative research centres, start up funding for overseas promotional efforts.
- iii) Commitment to the sector and a willingness by firms to present a united Australian wine industry in international markets.

The Academy Committee believes that the wine industry could serve as a model for other sectors in the development of their own sectoral plans. Presumably, there have been the usual internal difficulties in implementing the new systems, but the overall appearance is a well-organised and pro-active sector, with its member companies well placed to expand their domestic and export sales of wine.

## 9.2 FISHING INDUSTRY

The Australian fishing industry, or "seafood industry", exports about \$ 1 billion of products pa, and has acknowledged strengths in terms of its clean environment, technology and access to Asian markets.

There are a number of factors that have contributed to difficulties in organising and managing this sector in Australia.

- A "fragmented" industry with many small operators scattered across Australia, producing a multiplicity of products for different markets

## FOOD SECTOR PLANS

- The irregular nature of fisheries, unpredictable weather, fisheries resources, and markets.
- Difficult labour conditions, involving all weather and water conditions, all hours, often for long periods at sea.
- Traditional tensions between the mobile “hunter-producer” and the fish processor, leading to a general lack of cooperation within the industry.
- Different requirements between State fish markets by variety eg fin fish types, abalone, mussels, prawns, rock lobster, and by market destination, eg domestic or export.

The seafood industry has been dominated by a production rather than marketing approach in domestic and export markets. Industry participants frequently cite the level of regulation as one of the major problems in their industry. The survey respondents made numerous comments to this effect. The question of regulation has also been referred to by Thrower and McVeigh [8].

"The fishing industry is subject to regulation at State and Commonwealth levels. A scallop dredger operating out of Lakes Entrance needs a number of licences. Victorian, Tasmanian and Commonwealth fishing licences are advisable, a master's ticket, radio operators licence ... the list goes on.

Government regulations may specify the type of gear used, the time fish may be caught and the size that can be kept. The Australian Quarantine Inspection Service (AQIS) must ensure that the product is safe, true to label and meets the requirement of the importing country. All these controls have serious effects on business".

There is an increasing awareness, within the fishing industry of the need for some form of strategic/marketing planning. However, the industry is poorly structured for the systematic development of industry views and plans, and the few structures that do exist apparently have insufficient resources to provide this function.

The Australian Fisheries Management Authority (AFMA), was established in 1992 to manage fisheries stocks, through licences for the 3 - 200 miles zone that AFMA controls. State Fisheries control inside these limits. AFMA does not have a marketing role.

The Fisheries Research and Development Corporation (FRDC) have initiated some planning studies of the industry, to be conducted by consultants, through the National Fishing Industry Council. Another recent initiative of the FRDC is assistance to the Australian seafood industry in the establishment of the National Seafood Centre in 1992. This Centre will be devoted to the “post-harvest” sector.

Industry participants acknowledge the lack of communication, cooperation and organisation within the industry, as well as the shortage of funds to create a viable peak industry body. In the latter respect, they frequently contrast the fishing industry bodies with the Australian Dairy Corporation and the Australian Meat and Livestock Corporation which are well supported by industry levies.

Thrower and McVeigh [8] have referred to a recent New Zealand Government report [9] which has “recommended the formation of an industry owned and controlled company SEADEL which would have the following functions:

- developmental research,
- strategic research,
- facilitation,
- development of a vision for New Zealand, and

## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

- information transfer

This recommendation resulted from consideration of a number of constraints to aquaculture and fisheries enhancement in New Zealand, including:

- suitable space for development;
- lack of a collective vision in New Zealand;
- "people" - attitudes and knowledge;
- technical knowledge;
- lack of focused developmental research;
- fragmented nature of existing providers;
- planning and policy constraints.

These constraints are certainly shared by the Australian fishing industry, and possibly of more significance given the diversity of species and fisheries. A consideration of such constraints in the Australian context must begin with an appreciation of what is being done about it, before new approaches are suggested".

The Academy Committee sees considerable scope for fishing industry leaders, in Australia, to develop structures and processes to oversee the long term development of this important sector.

### **Recommendation 8**

**The Committee recommends that sector plans be developed for each of the major food sectors in Australia, facilitated if necessary by the Agri Food Council.**



## 10 INNOVATION, RESEARCH AND DEVELOPMENT

The food industry in Australia has a long tradition of innovation, particularly strong in the rural industries and a sound level of R&D competency in food processing. The research structures which have served the Industry well in the past are receiving increasing attention and undergoing some important changes. These changes reflect the view that technological innovation is a crucial factor in the competitiveness of a nation.

During the 1970s and early 1980s, Australia's ratio of R&D expenditure to GDP was low and declining, relative to most OECD countries. In 1993, Australia ranked 16th among 24 OECD countries in terms of the ratio of Gross Expenditure on R&D, (GERD) to GDP.

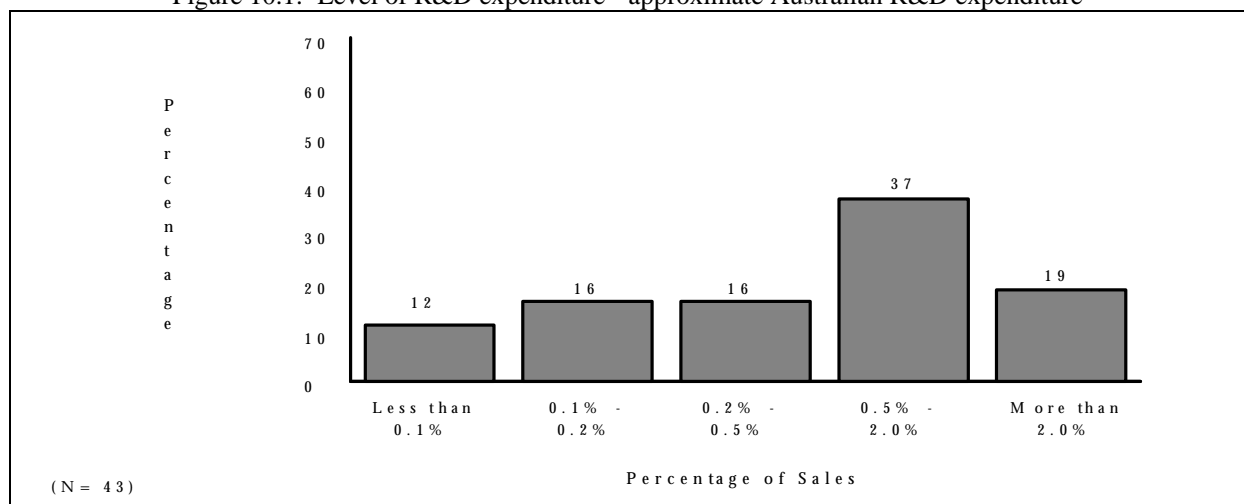
The other main characteristic of Australia's R&D has been the dominance of the government sector and the correspondingly low business R&D to GDP ratio. A recent BIE report [10] stated that:

The dominance of publicly funded R&D has implications for the type of R&D undertaken. The public sector performs around 60 per cent of Australia's R&D, and the bulk of this (around 85 per cent) is concentrated in the research rather than the development stage. By contrast, two-thirds of business R&D expenditure is directed at product development, but this represents only one-quarter of overall R&D expenditure. The major part of Australia's R&D effort therefore tends to be concentrated in the early stages - the research stage dominates the development stage in the ratio of 2:1. Because of this feature, recent commentaries have emphasised that while Australia is relatively strong in the research phase of the innovation process, it is relatively weak in commercialising the results of that research.

ABS data indicate that expenditure of R&D in the food, beverage and tobacco sector was \$90 million in 1990-91 or approximately 0.3% of total food industry sales. In constant 1984-85 prices, this represents a 68% increase in Food, Beverage and Tobacco R&D in the six years since 84-85, somewhat lower than the 82.9% increase for "all manufacturing".

As can be seen from **levels of R&D expenditure**, Figure 10.1, the respondents to the questionnaire claimed to spend considerably larger amounts on R&D than these average levels for the food industry and more than "manufacturing industry as a whole".

Figure 10.1: Level of R&D expenditure - approximate Australian R&D expenditure



## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

Further analysis showed a different pattern for the large and smaller firms as shown in Figures 10.2 and 10.3.

Figure 10.2: Level of R&D expenditure - approximate Australian R&D expenditure - firms with 200 or less employees

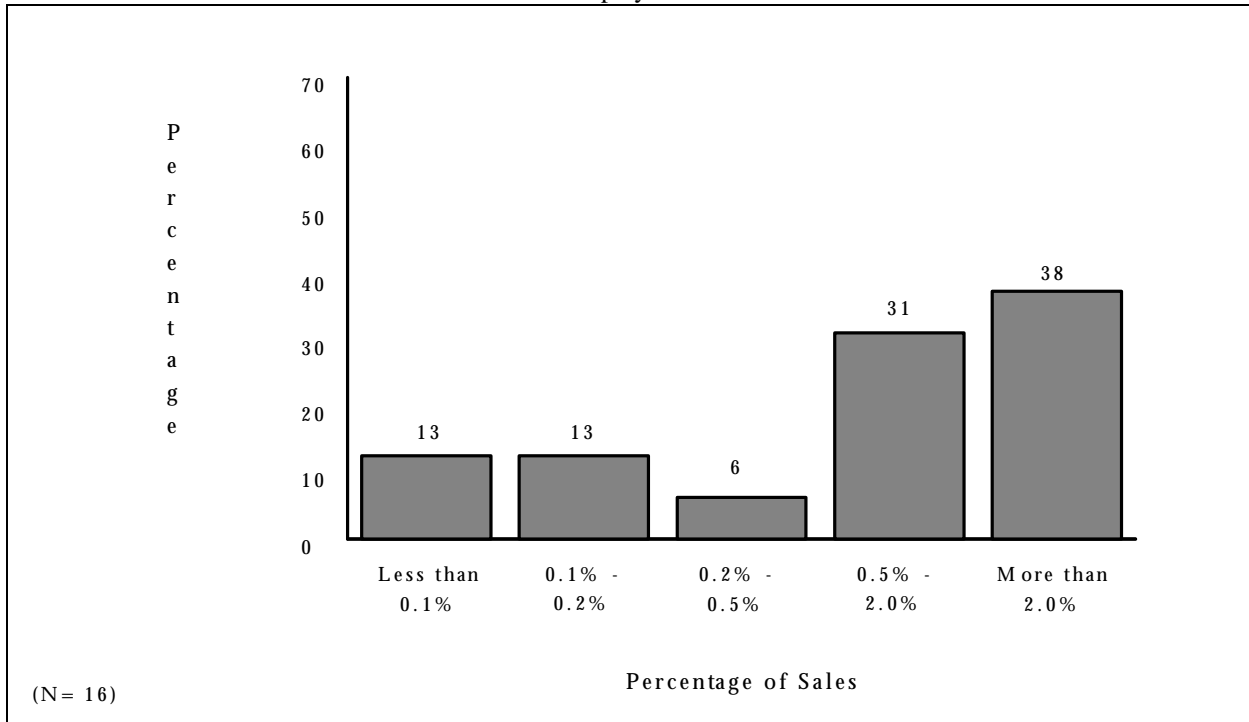
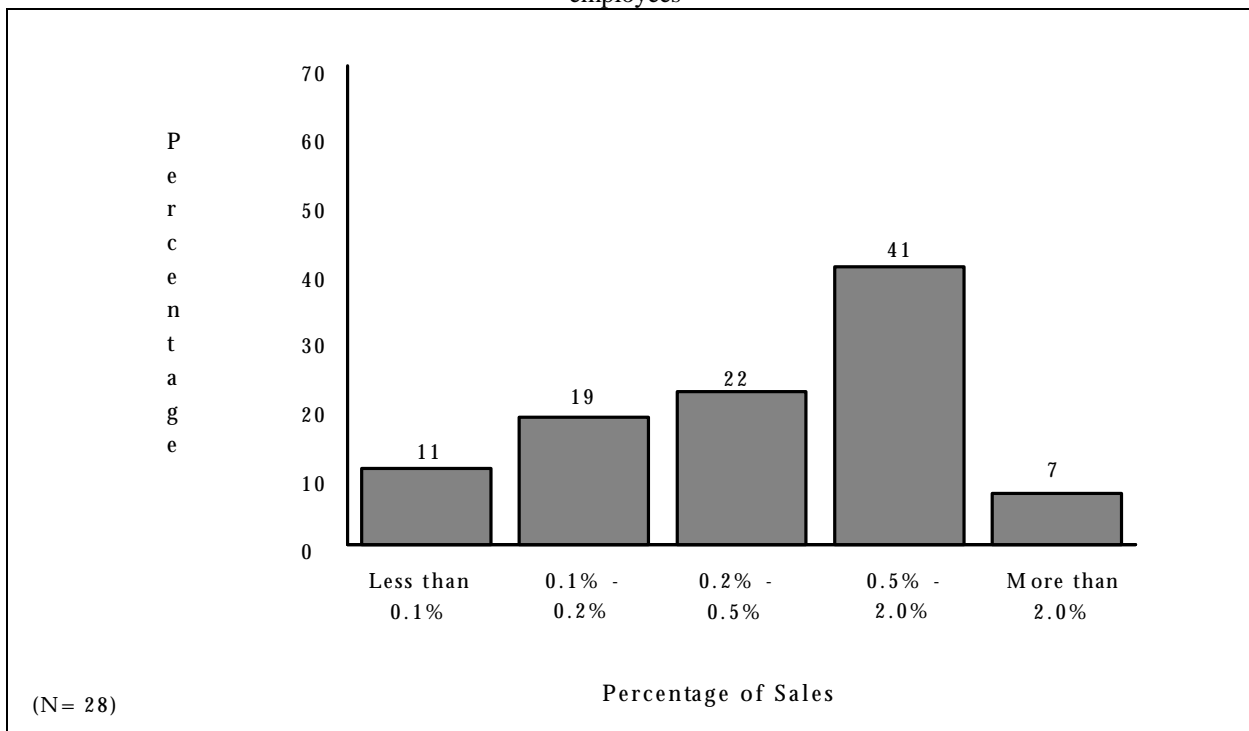


Figure 10.3: Level of R&D expenditure - approximate Australian R&D expenditure - firms with more than 200 employees



The explanation for higher than average levels of R&D could be any of a number of possibilities, for example:

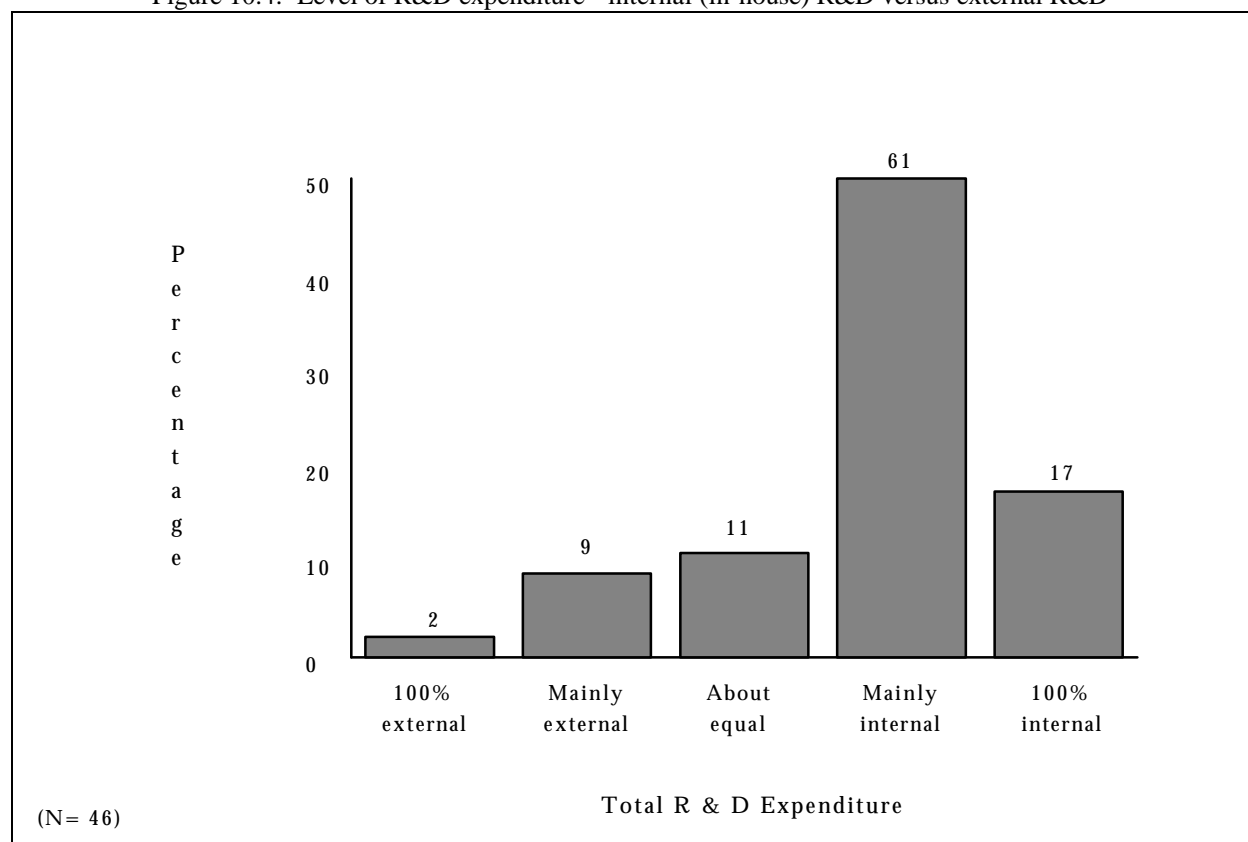
- The survey figures are correct, and can be taken at face value.
- The sample represents “leading” food companies, hence their R&D expenditure is greater than average.
- The small companies, with lower sales, might conceivably have a higher R&D/sales ratio.
- The results could reflect the definitional and other difficulties inherent in measuring R&D activity through a survey.

The Committee is inclined to conclude that the R&D expenditure for this group of companies could well be above average. This view is supported by responses to other closely related questions, such as the importance of innovation and the increase in scientists and technologists, Figures 6.16 and 6.19.

### 10.1 OTHER FINDINGS FROM THE SURVEY

The respondent companies rely to a very large extent on **internal (inhouse) R&D** as shown in Figure 10.4.

Figure 10.4: Level of R&D expenditure - internal (in-house) R&D versus external R&D

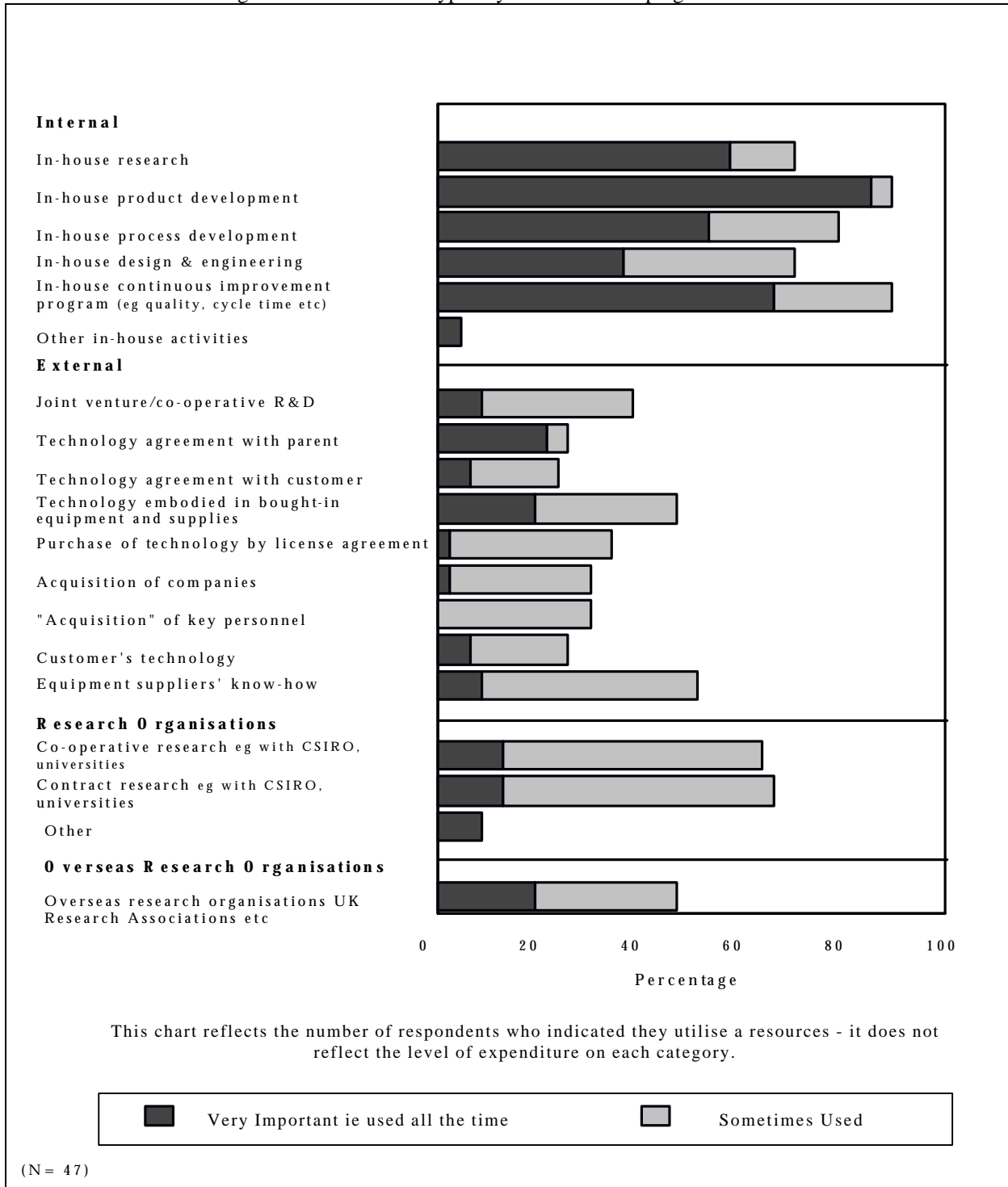


This finding is supported by responses to a related question about resources typically used for developing innovations, the results of which are shown in Figure 10.5. There was a combined

COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

25% for cooperative/contract research conducted by CSIRO and Universities, and a slightly smaller response for "technology agreement with parent", "Technology supplied with equipment, supplies" and a lower (18%) level for overseas food research organisations.

Figure 10.5: Resources typically used for developing innovations



The Committee has some concerns about the interpretation of the above chart, Figure 10.5. As noted on the graph, the length of each bar does not reflect the dollar value of R&D expenditure, merely the number of respondents who ticked any given item. There is a possibility that the

relative differences between internal and external might be overstated. This question is of more than academic interest. Accurate data could assist private and public sector R&D planning, and because of this the Committee recommends compilation of definitive data on development of food innovations.

**Recommendation 9**

**The Committee recommends that the CSIRO or Agri Foods Council compile definitive data on the resources used for the development of innovations in the food industry, with particular emphasis on “internal” and external” research and development.**

As regards **technical resources** at the firm level, there was a marked difference between the larger and smaller companies’ responses (Figures 10.6 and 10.7).

Figure 10.6: Technical resources in Australia - internal R&D team - smaller companies

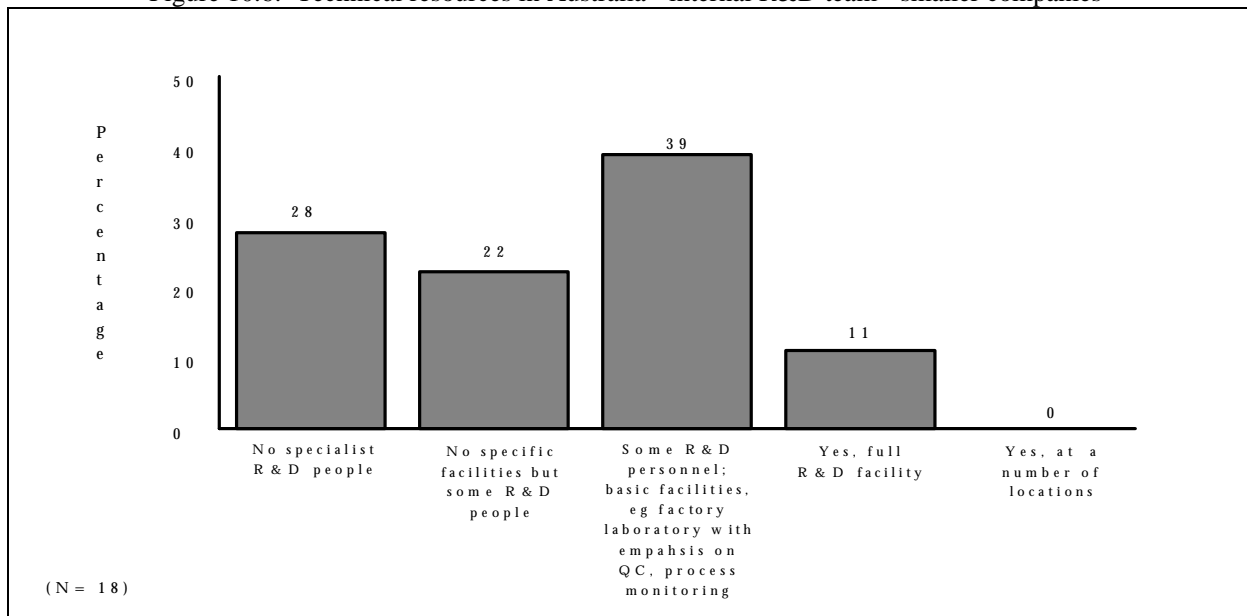
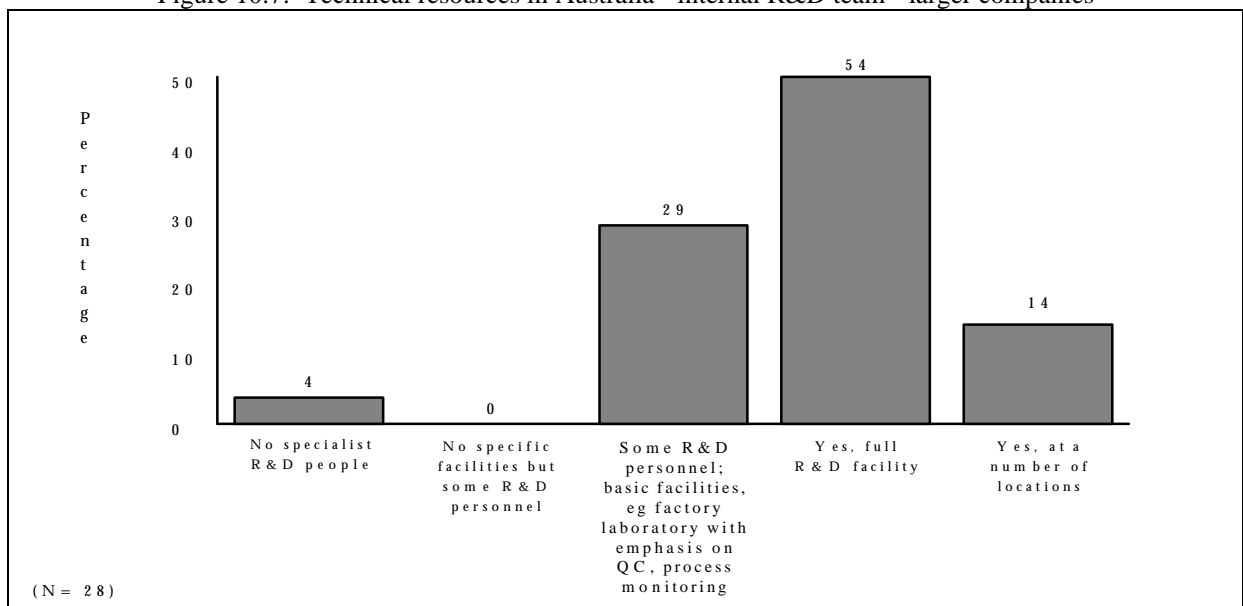


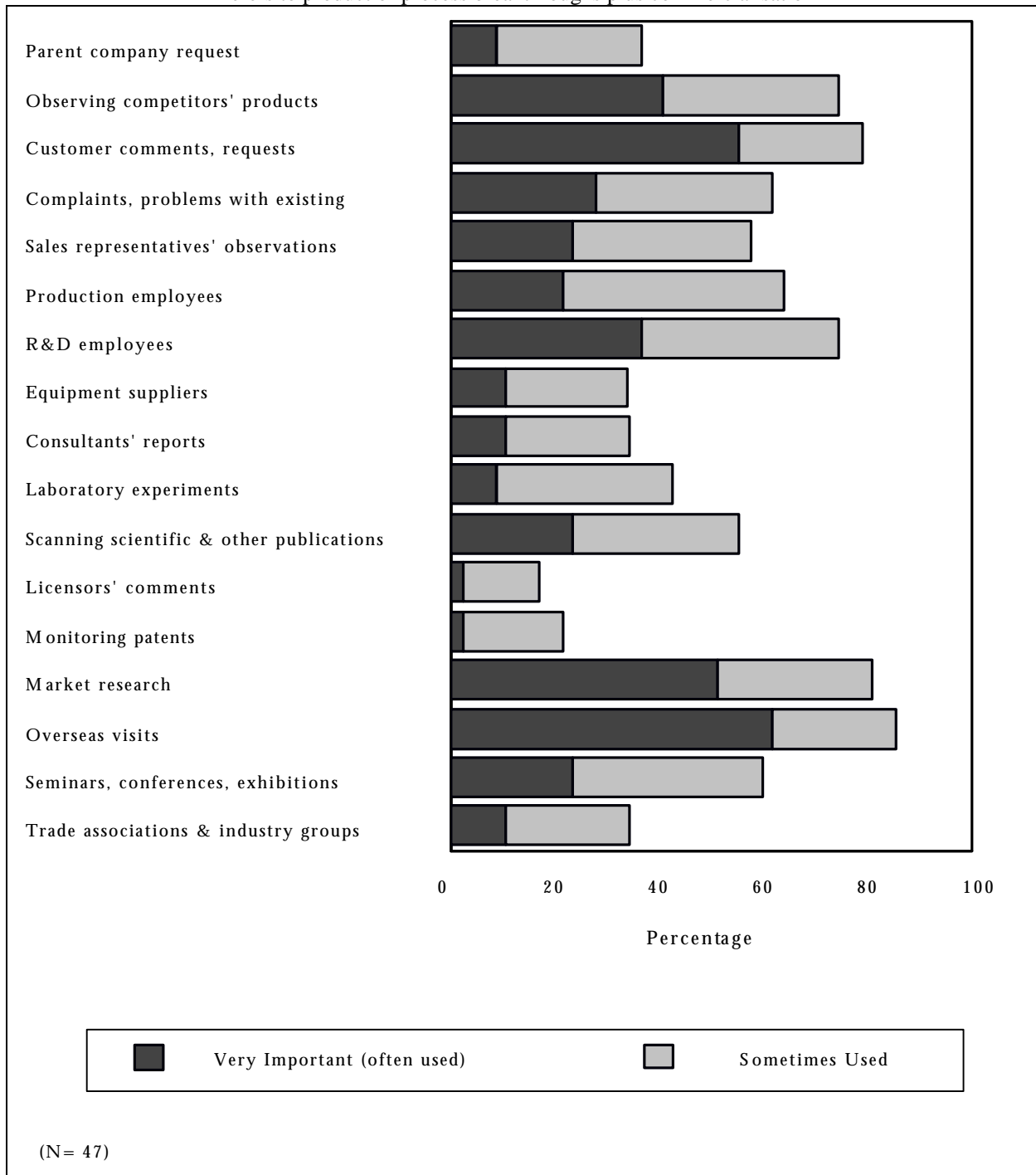
Figure 10.7: Technical resources in Australia - internal R&D team - larger companies



## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

On the subject of **Innovation "Triggers"**, or stimuli, the survey confirmed a widely held view that the market, including competitors' products, is the main area that triggers the innovation process (Figure 10.8). R&D employees played a somewhat smaller role, which would seem consistent with the innovation models discussed later.

Figure 10.8: Innovation triggers - important stimuli or "triggers" to the innovation process - where innovation refers to product or process breakthroughs plus commercialisation



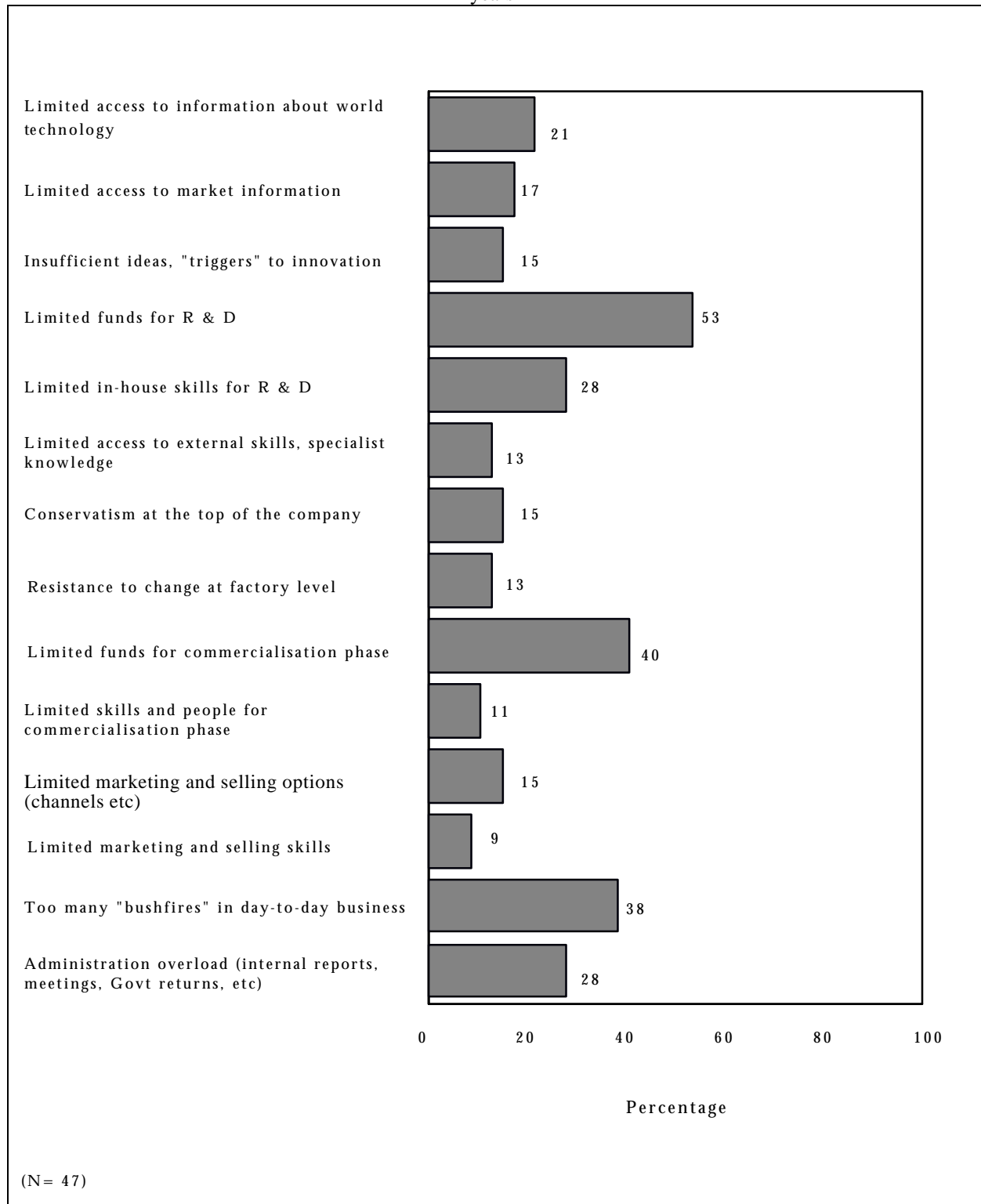
A question about **"Constraints to Innovation for International Growth"** showed three main areas:

## INNOVATION RESEARCH AND DEVELOPMENT

- Limited funds for R&D,
- Limited funds for the commercialisation phase, and
- Too many bushfires in day-to-day business.

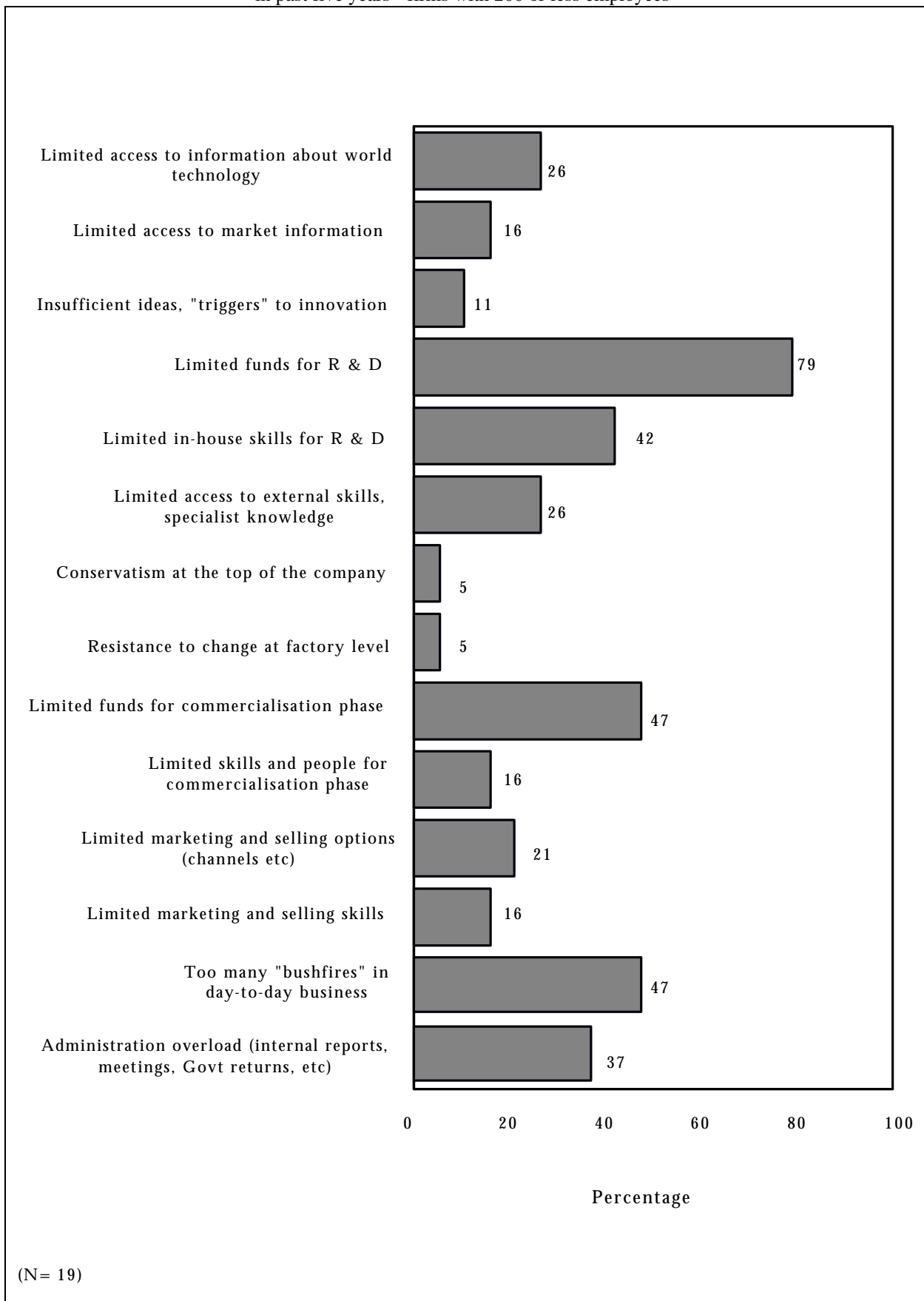
These three major factors were registered for both large and not so large companies.

Figure 10.9: Constraints to innovation - constraints hampering innovation for international growth in past five years



## COMPETITIVENESS OF THE AUSTRALIAN PROCESSED FOOD INDUSTRY

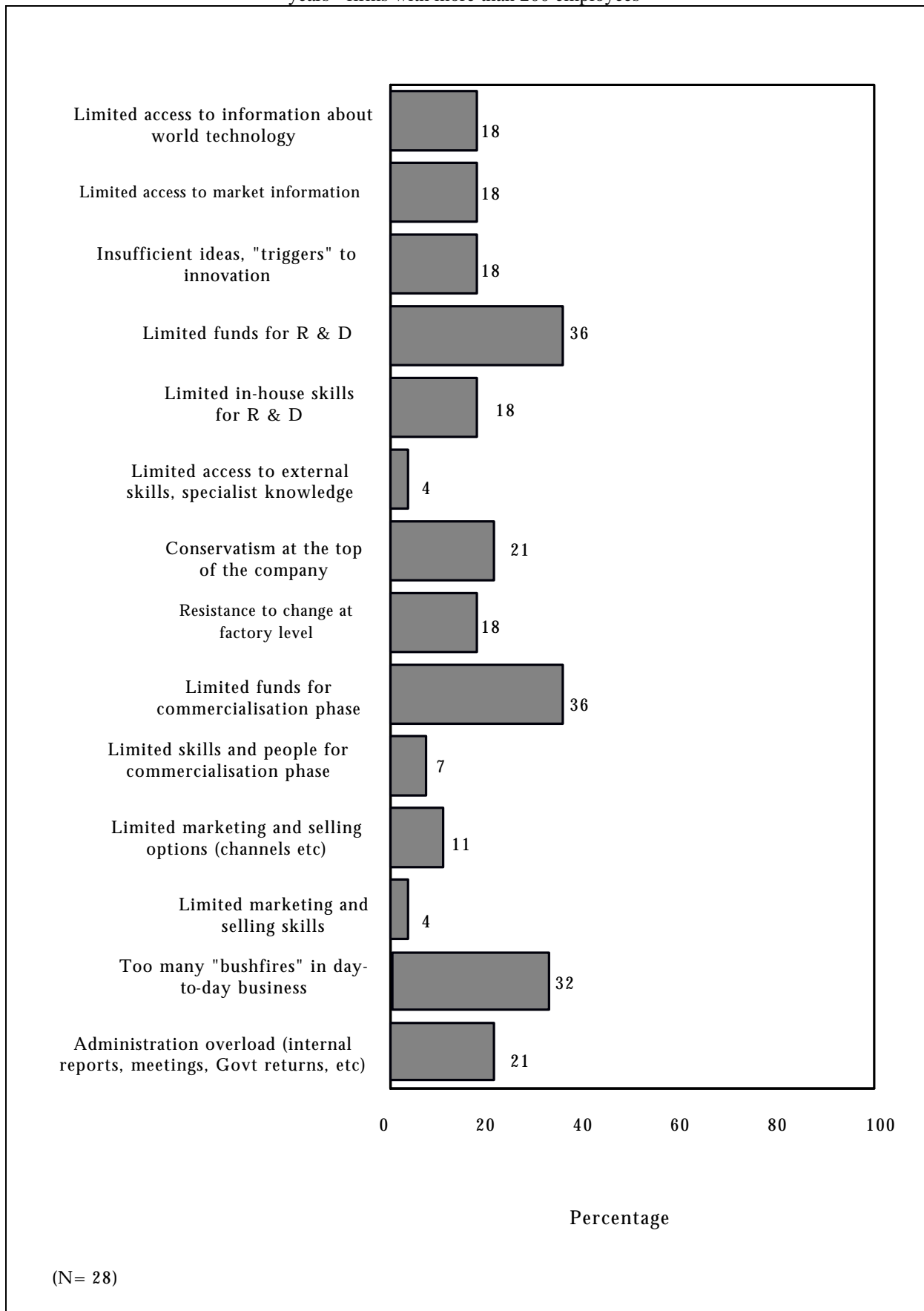
Figure 10.10: Constraints to innovation - innovation - constraints hampering innovation for international growth in past five years - firms with 200 or less employees





## INNOVATION RESEARCH AND DEVELOPMENT

Figure 10.11: Constraints to innovation - constraints hampering innovation for international growth in past five years - firms with more than 200 employees



There were two further findings:

- i) The smaller companies overall ticked more of the items as constraints ie the same constraints as the large companies but registered by more of the smaller companies.
- ii) The smaller companies registered a fourth factor "Limited in-house skills for R&D". All of these factors, limited funds, limited in-house skills and too many day-to-day problems, lend support to the "research technologist" program proposed to the Committee and described in the "Reforms" section following.

## 10.2 THE NEED FOR REFORMS IN R&D INNOVATION

Many food industry leaders, research management and Government representatives involved with food R&D have participated in recent initiatives aimed at improving the research structures, the effectiveness of research management and the utilisation of Australia's R&D resources.

The moves have evolved because of an increasing awareness of the following factors:

- The critical importance of innovation and R&D for achieving and maintaining a position of world competitiveness for the food industry. Competitiveness in food requires a shift from commodities toward value-added foods, and companies' "speed to market" with product innovations.
- Difficulties in the traditional R&D approach, for example:
  - Australia's relatively low level of research funding and the dominance of publicly-funded science-based R&D,
  - The large number and variety of research establishments,
  - The difficulty of measuring R&D, its costs and benefits,
  - The selection of appropriate R&D projects and the associated "grants" ritual.Difficulties of technology transfer than can arise with differences of vision and interests, between the researchers and supervisors on the one hand, and "users" or "potential users" on the other. This has prompted a search for greatly improved "linkages" between research and industry and some initiatives, and
- Questions of funding, and ownership of intellectual property rights.

## 10.3 SOLUTIONS

There seems little doubt that all parties accept the need for shift from a basic, science based research to *customer-led, market driven* innovation and R&D.

The establishment of the Innovation Working Group and development of the Cooperative Research Centres (CRC's) are examples of the various parties' preparedness to shift towards the market model, with much stronger linkages. The Committee believes there are further major challenges facing all parties interested in food R&D, but the possible size and ramifications of the change could be very substantial.

The Australian Industrial Research Group (AIRG) has foreshadowed some of the changes, not specifically related to food, in a number of papers, including a submission to the recently-announced Industries Commission inquiring into R&D in Australia.

The following scenario includes some of the more radical changes that would occur under the AIRG proposals, adapted here for the food Industry.

They are included, not as a definitive position on the direction of R&D, but to highlight some of the major consequences that would flow from adopting the customer-led approach to R&D:

- There would need to be a total reassessment of research and innovation philosophies, structures and responsibilities. The CRC's are indicative of the changes, with CRC's jointly funded by Government and industry, designed to improve the linkages among small groups in CSIRO and universities, and to create world class groups to cope with precompetitive issues important to the food industry.
- The customer focus would require strong and demanding customers - probably a sector of the food industry or its firms, but possibly other research leaders or Government departments, as long as there is a clearly identified customer around whom research programs and funding can be designed.
- The food industry would also see the emergence of highly focused research groups or institutes, totally dedicated to a particular sector of the food industry, to innovate and transfer technology with the over-riding objective of world competitiveness for that sector and the firms within it.
- The drivers of technology transfer would include secondment or transfer of the research specialists into firms to understand the business and identify opportunities or gaps between the business and best practice. There would be similar mobility of staff, exchanges or visits among the Research Institute, Universities and the food industry.
- The AIRG suggests that most of these research institutes, or "Centres of Excellence", would evolve "from CRCs, including the existing industry relevant CSIRO Divisions".
- The institutes would be joint ventures between Industry, University and Government, all sharing the funding with Industry's share about 50%. The model calls for broad programs to be set by industry, and industry would also have a major involvement from Board level down to Project Management.
- The customer focus would influence selection of projects that have a good chance of success, and would necessitate joint effort and agreement by the researcher and the user, on problem definition, commercial objectives, etc.
- It is important to note that strong customer - oriented, market-driven R&D should not be confused with "short term commercialism and survival constraints under the present Government policy to make science pay its own way". The Committee believes there are two quite different principles, although with the increased level of attention to customers and funding, the difference can become blurred. Indeed, the AIRG [11] cites research fundraising as one of the major factors restricting faster growth in the interaction between industry and Government research groups:

"In raising funds, some [research] groups want to take a more business-like and entrepreneurial role by becoming the main risk taker, and to manage the development and commercialisation phases. AIRG companies feel that universities and the CSIRO should rather support, at the precompetitive stage, an internationally strong technology base that interacts with enterprises. These enterprises in turn, should be managing, or be encouraged to manage, the development stage through existing market linkages, products and organisations."

- In a similar vein, the customer focus should not in any way compromise the type of research undertaken within the food industry nor the quality of that research work. The real difference

with the customer-focus is that the customer will be clearly identified and the strategic or tactical research objectives understood. As AIRG suggests, this would still be the case for longer term fundamental research, in which case there would still be a customer who might be a research chief or government department, working towards a long term national priority or industry objective.

A development manager from one of the State Departments has advised the Committee of a proposal that could significantly enhance the linkage between universities/research establishments and industry, and particularly for small to medium firms, assist all parties in their understanding of the firm's research needs. The proposal is novel to the extent that the "research technologist" would be relocated as an employee of a food exporting firm, on say a three year contract, with funding assistance in the form of a diminishing salary grant over each of the three years.

The Academy Committee considers the proposed scheme is in the spirit of the R&D reforms and would almost immediately fill an acknowledged gap in the delivery of research to a large number of food companies; it would identify the real needs for Research and Development and it would provide a practical means for Chief Executives, and possibly Boards of such companies, to build commitment to R&D. As the proposal notes "there are many sound developments and a lot of innovative people in industry and Government . . . but industry is generally lacking in organised Research & Development". The proposal also mentions funding for such a scheme. It suggests that the Teachers' Company Scheme and several other little-used Government programs could be amalgamated to provide the funding. The Committee is not in a position to comment on the magnitude or specific source of Government funding, but the Committee does support the concept as a valuable contribution to one of the "difficult areas" of food industry R&D.

The Committee believes the scenario outlined in these pages has considerable merit initially as a discussion document, but hopefully as a catalyst for reforms that will put Australia's system for food R&D and Innovation ahead of other countries who are also struggling with these issues. This is particularly important at this time when the industry and government seem prepared to explore new structures and changes in the way that each have traditionally managed research.

The CRC concept was a bold move that embodied many of the principles of customer focus and linkages. It should be possible to extend the concept further to create an R&D/innovation structure with clear direction, customer-focus and increasingly driven by the needs of the industry sector.

#### **Recommendation 10**

**Arising from the development of food sector plans the food industry should encourage the development of highly focused research groups or institutes.**

#### **Recommendation 11**

**The Committee recommends a reassessment of research and innovation philosophies, structures and responsibilities within the food industry. . The public sector research establishments should then explore the possibility of establishing close linkages with the food industry by the placement of Food Technologists within individual firms.**

The Committee notes that the BIE report "R&D, Innovation and Competitiveness"[10] suggests that the non-R&D costs can be notionally offset against the "transfer component" of the concession - which refers to the subsidy that firms obtain on the R&D that they would have done in any case, ie without the concession.

The Committee believes it is not in the interests of industry innovation for the transfer component "issue" to mask this important deficiency in the 150% R&D concession. There would be a number of important benefits from declaring market analysis expenditure and market entry expenditure as "eligible" under the 150% R&D rules:

- Possible increase in the number of marginal innovating projects that do not otherwise show adequate returns to the innovator,
- The normal Government clawback of some benefits through the taxation of profits on such additional projects,
- Less tangible "spillover" benefits for society, which we understand from recent studies can be very substantial, and
- Perhaps most importantly, a clear signal to industry participants that market analysis and marketing/distribution are now recognised as vital elements of the innovation process.

**Recommendation 12**

**In respect of the 150% tax concession, the Committee supports the Block Task Force recommendation that a proportion of expenditure incurred on market analysis and the development of market entry strategies be allowed as eligible supporting activities under the R&D tax concession.**

## 11 INVESTMENT BY THE FOOD INDUSTRY

The May 1991 report to the Prime Minister's Science Council stated that "without investment in new and upgraded food processing capacity, the goal of increased processed food exports will be an empty vision".

A recent DITARD report has confirmed that the achievement of the \$7 billion export target will require a quantum shift in investment. The document cited BIE estimates that the historic rate of investment in the processed food industry will have to double if the growth in exports is to be achieved.

This is one of the critical challenges for the processed food industry: How to achieve the quantum increases in capital investment to meet the current and anticipated export opportunities?

Many CEO's observed that the investment climate and taxation regime in Australia are *not* sufficiently attractive to ensure the quantum increase in investment that will be required to achieve the \$7 billion export target for highly processed foods.

The Committee has considered some of the incentives typically offered by other countries in the region to attract investment (eg direct subsidies, finance, tax incentives, export processing zones, marketing and infrastructure support, trade related investment measures etc) and agree with the view that such measures can have a significant impact on the location of new investment within the region. The Committee's main recommendation for the industry statement involves creating the environment to attract investment in Australia's food industry, vis-a-vis other locations in the region.

Survey participants also pointed to the indirect taxes and charges (payroll tax, superannuation levy, workers compensation, training guarantee levy etc) that Australian food exporters must carry irrespective of their success in achieving international best practice in all other cost inputs. Indeed, many CEO's proposed a simple 5 - 10% rebate on export sales to compensate for such unavoidable costs.

This Committee is not in a position to say whether such rebates would be permissible under GATT. However, we understand that many of the competing food exporting countries, including those in Asia, have value added tax systems and such countries have effectively achieved the export rebate, in a GATT compatible way, through VAT zero-rating for exports.

The Committee made a submission to the former Minister for Industry, Technology and Regional Development on 13 January 1994 as input to the Industry Statement. This submission was based on the key findings of the Committee carrying out this study and it included recommendations on investment in respect of new capital expenditure in Australia for the production of value added foods. Some of these recommendations have been recognised in the White Paper released on 4 May 1994.

The Committee cannot say whether these recent Government initiatives will be sufficient for companies to make the capital expenditure necessary to achieve the quantum increase in export volumes for the food industry. However, the Committee believes that it will be appropriate for the Government to monitor very closely the investment levels in the food industry and to take corrective action if there is evidence that the investment is insufficient to either meet the export goals or to maintain Australia's position relative to other food exporting countries in the region.

## 12 BUILDING ON SUCCESS

The Committee is conscious of the need for Australia to capitalise on the initiatives and momentum for change that have been associated with the work of the Agri-Foods Council. We have come to the conclusion that the most suitable mechanism for gaining the support of the thousands of food companies throughout Australia is the food sector plans outlined earlier.

### 12.1 FOOD SECTOR PLANS

The food sectors of the Australian food and beverage industry differ enormously in the extent of organisation, de-regulation, sophistication of strategic planning and other areas that could be of common interest. Nevertheless, there are examples of sectors that have been able to put aside company rivalries and differences in order to tackle common issues at a sector level. The Committee commends this approach to all sectors as there are a number of critical issues that cannot be dealt with by one or two firms on their own, yet the whole Australian industry is too diverse and fragmented for resolution of such issues at the national level.

The Committee does not presume to suggest the detailed nature of such plan for each of the food sectors. However, we do believe that:

- a) development of such food sector plans would be of considerable assistance to companies operating within each sector and would help to provide the necessary focus and vision at sector level,
- b) sector plans would also assist in determining where the Government should be involved and where the industry sector, as a group, should assume greater responsibilities,
- c) individual sector plans could also show the direction for streamlining and rationalising research structures as referred to above. There is sufficient evidence that companies have benefited in those sectors where industry participants have worked together to overcome common "Industry" problems,
- d) individual sector plans may need to relate to State or Regional plans. To the extent that a total national perspective is useful, the sector plans might some time be consolidated, for example, by the Agri-Foods Council.

For example, Australia's extensive horticultural industries, many of which could undergo considerable production expansion, could with advantage develop sectoral interests that might include:

- an understanding of the nature of World markets in their area of activity,
- the establishment of a vertical integration of fruit growers, packers, processors and market agents,
- a concerted and disciplined approach to export market development,
- a long term investment in research and development of a financially relevant area,
- a recognition that voluntary cooperation of players in the sector is strengthened by legislative support for the industry's export marketing arrangements.

The precise nature of their activity would be up to those involved in the sector, but it is noted that other successful food sectors have found these minimum actions to be highly effective in leading to further sectoral development.

## 12.2 ESTABLISHING THE APPROPRIATE ROLE FOR GOVERNMENTS

Development of food sector plans should also clarify the “food industry/Government interface.”

There is no doubt that the Commonwealth Government and some of the State Governments have devoted considerable resources and effort to improving the food industry in recent years. The questionnaire has confirmed that these reforms and efforts have raised the consciousness of the food industry.

A number of industry participants expressed dissatisfaction with the some aspects of Government/Industry interface. For example, discussion ranged widely, from market access issues, where many companies believed the Government should be doing more, to regulation and inspection services, where many of the companies believed the Government should be doing it differently, to microeconomic reform, to R&D structures, government agencies and government assistance programs.

The Committee believes that:

- i) there was an indisputable need for Government intervention in the food industry to initiate the culture change and reforms; and
- ii) most, if not all of the existing Government programs were well intentioned and originally designed to fill a perceived gap in the services and support offered. However, it seems that some of the programs have fallen wide of the mark, and are now sending the wrong signals to the Industry.

Accordingly, the Committee recommends use of the sector plans as a means to define the food industry/Government interface and to create clarity and direction for the food industry as a whole. Without such radical measures, we are concerned that excessive and sometimes unwelcome Government involvement will stifle the spirit and performance of an industry that Government is keen to develop.

The overall objective here should be to determine, quite clearly, the functions and services that are required of Government and the most effective way of delivering such services to the food industry. It is anticipated that the Governments’ roles, at Federal and State level, will shift significantly to that of facilitators to the industry, identifying and taking steps to overcome deficiencies and creating the environment within which the sectors and firms can succeed.

There is considerable potential for clarifying:

- the functions and responsibilities that could be better handled by those close to the action, namely the sector or its member companies,
- the remaining key roles of the respective Governments,
- those services which might be better delegated to State or Regional (or Industry) level,
- those that should be centralised, and
- and those measures that should be introduced for a limited period of time with in-built provisions for phasing out and/or exit.

The Committee acknowledges that resolution of these matters raises some Federal-State issues that are as old as Federation itself. However, there are signs of hope eg, the instances where responsibilities have been shared such as the delivery of the NIES programs.



The Committee sees the possibility of a highly-competitive and highly-directed Australian food industry evolving in the 1990's, driven principally by the activities of three main groups:

- Food Industry Sectors eg, Meat, Dairy, Wine, Seafood, Cereals, Horticultural Products etc.
- Federal Government initiatives.
- Each of the State Governments initiatives.

In other words, the 1990's could well see a progression from "macro" to "micro" in the food industry, with the final vital unit being the individual firms.

### 12.3 COMPETITIVENESS AT FIRM LEVEL

The Committee recognises that the Government can play a vital supporting role in the provision of programs and ensuring a favourable context for business to prosper through accelerating microeconomic and other reforms. Eventually the support programs must be withdrawn and the Committee believes it is only then that we will see the emergence of a large number of world competitive Australian food companies, working within a national framework for the development of the various sectors.

#### **Recommendation 13**

**The Committee recommends use of the food sector plans as a means to define the Government/Food Industry interface, and to create greater clarity and direction for the sectors and the Industry as a whole.**

### **13 CONCLUSION**

The survey has revealed a general improvement in performance of the Australian food industry and a few outstanding export achievements. However, the Industry leaders acknowledge that there is a long way to go to ensure world competitiveness.

Many see the 1990's as a watershed for the industry. Either the industry will grow rapidly with the opportunities in the region, or it will decline as other countries attract the new plants and technologies; there is no longer an option for Australia to stay more or less where we are now.

A number of recommendations in this report call for further actions from industry and support from Government as industry sector plans are progressively implemented. A declining involvement of Government is appropriate in the longer term.

Such recommendations are not intended to avoid the hard work of pursuing international competitiveness in the Australian Food Industry, that must still happen, but they do recognise that the additional imposts in Australia, coupled with generous incentives in neighbouring countries, results in a playing field that is still far from level.

The Committee commends the public sector and private sector representatives who have promoted the spirit of reform and hopes that the vision for a vibrant, world-competitive Australian Food Industry is realised.

## GLOSSARY OF ABBREVIATIONS

|            |  |
|------------|--|
| ABS        | Australian Bureau of Statistics                              |
| ACTU       | Australian Council of Trade Unions                           |
| AFMA       | Australian Fisheries Management Authority                    |
| AIRG       | Australian Industrial Research Group                         |
| AMLC       | Australian Meat and Livestock Corporation                    |
| AQIS       | Australian Quarantine Inspection Service                     |
| ASIC       | Australian Standard Industry Classification                  |
| AWBC       | Australian Wine and Brandy Corporation                       |
| AWEC       | Australian Wine Export Council                               |
| BIE        | Bureau of Industry Economics                                 |
| CAFTA      | Council of Australian Food Technology Associations           |
| COAG       | Council of Australian Governments                            |
| CRC        | Cooperative Research Centre                                  |
| CSIRO      | Commonwealth Scientific and Industrial Research Organisation |
| DITARD     | Department of Industry, Technology and Regional Development  |
| EFIC       | Export Finance Insurance Corporation                         |
| EMDG       | Export Market Development Grants                             |
| EPAC       | Economic Planning Advisory Council                           |
| FIAC       | Food Industry Advisory Council                               |
| FRDC       | Fisheries Research and Development Corporation               |
| GATT       | General Agreement on Trade and Tariffs                       |
| GDP        | Gross Domestic Product                                       |
| GERD       | Gross Expenditure on Research and Development                |
| GMA        | Grocery Manufacturers Association                            |
| IR&D Board | Industry Research and Development Board                      |
| ITES       | International Trade Enhancement Scheme                       |
| MOU        | Memorandum of Understanding                                  |
| MRL        | Maximum residue level  |
| NFA        | National Food Authority                                      |
| NFSC       | National Foods Standards Council                             |
| NIES       | National Industry Extension Service                          |
| R&D        | Research and Development                                     |
| TQM        | Total Quality Management                                     |
| VAT        | Value Added Tax  |

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## APPENDIX 1

### QUESTIONNAIRE